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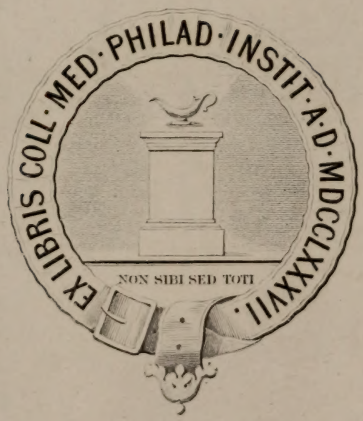
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Original Communications.

ART. I.—**Review of Some Later Remedies—(I) Coca Erythroxylon; (II) Damiana, Turnera Aphrodisiaca; (III) Gynephobia (fear of woman); (IV) Jamaica Dogwood; Piscidia Erythrina: (V) Electro-Therapeutics; (VI) Electro-Cautery; (VII) Electricity in Cases of Suspended Animation, etc.*** By JOHN J. CALDWELL, M. D., Honorary Member Gynæcological Society of Boston; Academy of Medicine, Abingdon, Va.; late Surgeon Brooklyn Dispensary and U. S. A.; Member American Medical Association, Medical and Chirurgical Faculty, Medical and Surgical Society of Baltimore, Electro-Therapeutical Society of New York, etc., etc. Baltimore, Maryland.

I. COCA ERYTHROXYLON.—If this valuable remedy had no other virtues than those immediately manifested in neuro-asthenia, hysteria, opium habit, dipsomania, alcoholism, etc., these alone would place it high in the rank of therapeutics. This remedy contains a number of virtues, and, indeed, probably more than any one therapeutic agent of late discovery,

*Read before Abingdon (Virginia) Academy of Medicine, and ordered to be published.

The above-named remedies are from the well-known house of Messrs. Parke Davis & Co., Detroit, Michigan, and the electrical instruments from Messrs. F. M. Kidder & Co., 820 Broadway, New York.

as some of the best authorities and experimenters have shown. In my opinion, *coca* is the most immediate, safest and most reliable nerve-tonic known—acting rapidly as a diffusive stimulant and leaving no unpleasant results. So general is its action on different nerve-centres, that in a few minutes after administration, there ensues a mental quietude and satisfaction, with easy respiration—at the same time producing a decided and rapid effect on the sacral plexus, thus affording the quickest relief to hysteria and its allied troubles, and adding tone and strength to the genito-urinary organs, offering to the profession a new and immediate aphrodisiac; and also manifesting wonderful properties in relieving general malaise, weariness and hunger. Hence its universal application as a restorer and as an arrester of destructive metamorphosis.

Coca has long been in use in South America, especially among the Indians on their journeys across the Andes, who chew the leaves to allay thirst, hunger and fatigue, thus enabling them to perform long journeys with limited quantities of food. The officinal preparations of the drug are the tincture, elixir and fluid extract. The dose of the latter is from one to two teaspoonfuls, well diluted; though, experimentally, I have taken much larger doses, producing for a half hour or more exhilarating effects on the brain—much like that of ether or amyl nitrite. This impression soon passed away—leaving the system in a state of quietude for several hours without any special desire for more, thus differing from other nerve stimulants. Again; I administered it to a gentleman, Mr. W., an artist of sedentary habits, who had long suffered with torpid digestion and gaseous accumulations, producing immediate relief, although he had tried many other remedies in vain—the doses being a teaspoonful in a wine-glass of water before meals and at bed time. In his case there were no unpleasant symptoms. Since then I have administered it in many like cases for gastric and enteric debilities with uniform good results. I have found the same good results in influenza, slight colds, and especially in the irritable cough of consumptives it gives decided relief, especially at night—a most important desideratum in the later destructive stage of this disease; or, as Bartholow

says, it lessens fatigue and increases the respiratory powers; and he is of the opinion that it would prove useful in phthisis, in wasting diseases, and in convalescence from acute disorders. Dr. James W. Hale, of Salem, Ohio (*Therapeutic Gazette*, 1880, page 290), maintains this opinion, and cites several cases in proof.

The journals of the past few months contain more or less information on the uses of this drug as a restorative and reclaimer from the opium habit. Lately I have treated several cases of dipsomania and alcoholism with this preparation. I found that they recovered more promptly than by any other treatment—the coca taking the place of alcohol, readily relieving the great thirst, with the advantage of cutting short its administration at option without depression or other unpleasant effects.

As to its aphrodisiac powers, my attention was first drawn to this remedy by the voluntary remarks of those to whom I had administered it. Since then I have treated several cases of sexual exhaustion of a temporary nature, with very satisfactory results.

But as a permanent tonic in these cases, I must continue to give preference to—

II. Damiana Turnera Aphrodisiaca.—This remedy I had the pleasure of introducing to the profession several years ago, although known in Mexico since early in the 17th century. It is now *generally* known, and it is admitted to be the best of the permanent tonics in the treatment of debility of the genito-urinary organs. If there has been any question as to its merits in this particular, it has been caused by the numerous imitations and counterfeit preparations that have been on the market since its introduction; or, as J. H. Hammond says: "The greatest impediment in its way to professional confidence, is the large amount of spurious preparations upon the shelves of our merchants, or which has been rendered worthless from age or improper handling; hence the many disappointments." The true damiana is a great remedy in renal and vesical diseases. In nephritic albuminuria the results were, from the beginning, most marked. The albumen slowly but steadily disappeared—

the patient at the same time constantly improving until perfect restoration to health ensued. In combination with atropia, it is one of our best remedies in inflammatory diseases of the kidneys.

Although slower and more silent than buchu, uva ursi, and other positive diuretics, the true damiana, persistently administered, will meet every indication fulfilled by these drugs, and is and must prove their superior in all inflammatory and mucous membrane diseases of the genito-urinary apparatus. Damiana in combination with tincture cimicifuga is an elegant remedy in painful diseases of the muscular coat of the bladder, and in neurotic diseases involving the kidneys.

The late Prof. E. R. Peaslee (my preceptor) frequently spoke in high terms of the different preparations of damiana in diseases of the female urinary organs. Many other authorities might be quoted in the same direction. In my hands it has fully sustained its early reputation.

Case I.—A young married lady, aged 20 years, from shock or fright, suffered abortion during her first pregnancy. After this her menses were scant and irregular, with failing health for several years. Did not become pregnant during this time. She and her husband were anxious for an heir, as an estate depended on the issue, aside from the natural desire of maternity. After careful examination of all the why's and wherefore's, I diagnosed a neuro-asthenic condition with consequent inertia of the genito-urinary organs. I ordered generous hygiene, gentle exercise, and administered fluid extract of damiana three or four times daily, commencing with small doses and gradually increasing them. After a few months, the menses became more regular and pronounced, with general improvement of health and spirits, and at the third month of treatment she became *enciente*, and went through to regular term, with a happy delivery.

This is cited as a typical case of many others that could be reported, where damiana acted an admirable part in the irregularities of woman.

Case II.—A gentleman of 30 years of age, of delicate frame and appearance. Constantly complains of feeble digestion, bowels irregular and constipated, complexion sallow, sleeps badly, habits sedentary; he is given greatly to literature,

and frequently delivers public readings, etc. He has been married several years without issue. Wife buxom, active and regular.

Upon examination, I found his genital organs rather small, with incomplete erections. Semen, under the glass, exhibits but few evidences of life and vigor. Ordered a more active life, less study, regular hours and diet. Placed him on damiana. After six months of careful management he was greatly restored. Reports his wife in a fair way to become a mother.

Case III.—Gynephobia (fear of woman).—Mr. ——'s case presents some interesting points. When in bed alone, his erections were sufficient, but in company with a woman he utterly failed to perform the act. There was no lesion of the organs. I reported this case as a failure. Electricity, rest, cold bath and the free use of damiana utterly failed. I have met several of such cases, and termed them gynephobia.

In cases of impotence from masturbation, accompanied with spermatorrhœa, we find morbid changes of the vesiculer seminales, ejaculatory duct, bulbous portion of the urethra and prostrate gland. Such cases require surgical and special treatment; but I have found much advantage to result from the use of electricity and the free use of damiana. These agents possess a tonic power over the nervous apparatus generally, and they act most favorably upon the nerve centres presiding over the functions of the urino-genital organs.

I do not hesitate, from my experience in the use of damiana, to continue my recommendation of it to the profession, asking for the genuine article a fair trial.

The name Damiana appears in the Mythology of the Ephesians. In the Temple of Diana, the most gorgeous and beautiful halls were termed "The Damianian Corrridors"; or, "The Amoranda," "The Abodes of Love."

IV. Jamaica Dogwood (Piscidia Erythrina).—Although this remedy is by no means a new one, its better qualities seem to have been undeveloped until lately. It has been placed upon the shelves as being secondary, or at least thought to contain virtues of a very moderate character. Within the past year the medical literature has frequently declared it to be an opiate and hypnotic of no mean importance, without the disadvantages which follow many of the

present anodynes, viz.: depression constipation, locked secretions, etc.

My experience with this drug has extended over a period of six months, which has taught me its value in many cases of neuralgia, especially about the face and teeth. As an immediate relief to toothache of decayed and broken teeth, I know no remedy to compare with it. The officinal preparations are tincture and fluid extract. The dose of each is from 10 to 20 drops, to produce natural rest, which is not followed by any unpleasant nervous phenomena.

V. Electro-Therapeutics.—In due time it was made known to the medical profession that electricity was a powerful therapeutical agent, and its application in the treatment of disease was wrested from the hands of quacks and charlatans. Electro-therapy is now an important specialty in medicine. The close analogy of electricity to nerve-force at once caused attention to be directed to its employment in the treatment of nervous diseases; but experiment has shown that it is applicable to the treatment, the relief and cure of other pathological conditions. Thus it may be used as a tonic in cases of nervous debility and in cases of paralysis, so as to take the place of nerve force which presides over functions of nutrition. The nutrition of the paralyzed limb is thus sustained, and likewise the revival of nervous energy promoted. It is apparent from the close analogy of electricity to nerve force, that this agent embraces a wide range of morbid conditions. Through the nervous cords which act as conductors, every part of the animal organism can be reached. In this way, secretion and elimination of morbid products may be promoted, and the organ or apparatus restored to healthy action.

There is no doubt, in my opinion, that electricity is one of the active forces which contributes to plant-growth. We have all the conditions of its generation, heat, moisture, unequal heating of mineral substances, causing thermo-electricity. We have also chemical action. It is impossible to draw a line of demarkation between vegetable and animal structure, and I doubt not that heat, light, and electricity are the physical forces under which animal structure is built up.

The light of the sun is as necessary to the vigor and health of the animal, as of the vegetable kingdom. Indeed, as already stated, the two shade into each other so as to render it impossible to say where the vegetable ceases and the animal begins. Electricity, being one of the forces which contributes to the animal organism, it is necessary to functional health.

The various conditions under which electricity is manifested, enable us to apply it to a variety of morbid conditions. Its wonderful decomposing power (electrolysis), has been utilized by the physician. The intense heat incident to its manifestation by certain combinations, has enabled the surgeon in many cases to substitute the cautery for the knife, indeed to apply it to the section of morbid growths not remedial by the knife.

From the want of apparatus, and the ignorance of its different modes of manifestation, electricity as a therapeutic agent was seized upon by the charlatan, and neglected by intelligent practitioners of medicine. By a curious coincidence the discoveries in electric science and improved apparatus was accompanied by great discoveries in regard to the functions of the nervous system. Whilst Oersted, Ampere, Faraday and others were making rapid strides in electric science, Sir Charles Bell, Magendie, Marshall Hall, Claude Bernard, Brown-Séquard and others were unravelling the intricacies of the nervous system. In no era of the world has there ever been such activity in scientific investigations, and the applications of science to the material comfort and welfare of mankind.

At least the votaries of medicine contribute their quota, and many of the most eminent of the profession are devoting their talents and energies to the therapeutical effects of electric force in the treatment of disease.

VI. Electro-Cautery.—As the result of our own experience, we may state that the successful application of electricity is strikingly manifested in the removal of morbid growths by the electro-cautery. This is especially true of those soft and bleeding tumors of the rectum, vagina, and other passages where the use of the knife is impracticable.

VII. Electricity in Cases of Suspended Vital Function.—We have been induced to try the effect of electricity in cases of suspended vital function resulting from narcosis, and cases of apparent death from drowning, from experiments upon living rabbits made by Dr. Wilson Phillip, of England, from which it appears that electric force was used to substitute nerve power. The pneumogastric nerve of the animal was severed immediately after it had eaten some parsley. After the death of the animal, which had great difficulty of breathing, and perished apparently from suffocation, the stomach was opened and the parsley found undigested. A similar experiment of section of the pneumogastric nerve was made, but a current of galvanism was passed along the nerve and continued for twenty-six hours. No difficulty of breathing occurred as long as the current was kept up. The animal was killed, the stomach examined, the parsley was completely digested. It thus appeared that galvanic energy is capable of supplementing nervous influence in that the process of digestion may be carried on. Similar experiments were made upon dogs with like results.

The following cases illustrate the beneficial effects of electricity to restore suspended and impaired vital function.

Case 1.—In the summer of 1873, I was called to see a child, Jennie C., suffering from a poisonous dose of laudanum. Every other means except electricity had been tried without benefit. The laudanum had been swallowed some twelve hours. A powerful current was continued for more than three hours, with the result of complete restoration. The respirations of nine in the minute were increased to eighteen or twenty, when the pupils began to dilate, the pulse became normal, and consciousness was restored, and vomiting and purging ensued.

The current was passed by placing the positive pole over the pneumogastric nerve at the angle of the sterno-cleido-mastoid muscle, and the negative pole over the epigastrium.

Case 2.—In 1874 I was called to attend a person in the Maryland Inebriate Asylum who attempted to commit suicide by taking opium. The usual remedies had been tried and proved unavailing. A Faradic current was applied and continued from 3 A. M. until 7 A. M. The respiration rose from seven per minute to eighteen. Patient restored.

Case 3.—Was one of dyspnœa from delirium-tremens. Faradism was applied, but the poles were reversed in order to obtain a sedative rather than a tonic effect. Within a few hours nervous excitement subsided, and aided by large and frequent doses of digitalis, sleep ensued. The patient recovered.

Case 4.—(Taken from the *Medical and Surgical Reporter* of Philadelphia, reported by Dr. Ed. C. Harwood, of New York.) An infant, aged 19 days, had been narcotised by morphine. He was relieved by the Faradic battery.

Case 5.—(Reported by Prof. W. H. Pancoast. *Medical and Surgical Reporter*, May 9, 1874.) The patient had taken 120 grains of chloral and 8 grains of morphia. The battery was used fourteen hours and life saved.

Case 6.—George, a colored boy, was fished out of the dock over an hour after immersion, apparently dead. I had but slight hopes of his resuscitation. There was some heat about the spinal column and head. I applied a powerful secondary current for several hours. At length I discovered faint heart actions, then occasional sighs, which gradually augmented. The organs gradually resumed their functions. The patient was restored to life.

Case 7.—Is reported in the *Virginia Medical Monthly*, May, 1874. "Resuscitation after thirteen and a half minutes of apparent death." At a meeting of the College of Physicians and Surgeons, New York, March 11th, Dr. L. A. Sayre exhibited a string of beads, one of which had been taken from the trachea of a child seven years of age. . . . She was relieved by trachotomy. . . . She coughed out the bead, gave one inspiration, and died. . . . Alcohol was injected into the rectum, and the galvanic current passed through the phrenic nerve. . . . She immediately rallied, and then had no further trouble.

Such are some of the wonderful effects of electricity (Faradism), in restoring suspended animation. They suggest the propriety of placing proper batteries and instruments in all life-saving stations, police headquarters, hospitals and other institutions, so that the aid of this powerful and wonderful agent may be invoked in all cases of suspended vital functions.

99 *North Charles street.*

ART. II.—**Lacerated Cervix Uteri Treated by Rubber Bands.**
By O. E. HERRICK, M. D., Grand Rapids, Mich.

The series of articles upon gynæcology contributed to the late numbers of the *Medical Monthly* by Dr. Joseph H. Warren, of Boston, Mass., has been read by me with great pleasure and interest; and especially the last one, upon "laceration of the cervix uteri." In that article I notice he refers to the method of closing the laceration with rubber bands instead of with sutures, in no very complimentary terms, and says: "It has been mentioned by *some one* that the rubber bands can be used in place of the sutures; but I can conceive of no more dangerous an operation than this procedure would be, as the band to hold the lips sufficiently together for union to take place, must encircle the neck of the uterus with sufficient force to obstruct circulation in the parts."

I feel called upon to answer the objections quoted in the above paragraph, as I am, no doubt, the *some one* referred to, as I believe I have the honor or dishonor to be the first to publish that, in my estimation, very excellent method of closing the lacerated cervix. (See *Medical Summary* for August, 1879; also see *Medical and Surgical Reporter*, of Philadelphia, for January 17th, 1880, Vol. XLII, No. 3.) I described the method of operation in these journals, and gave the history of a number of cases operated upon, since which publication the operation has been frequently performed by many Western gynæcologists and surgeons (as it may have been by surgeons in other localities) with uniformly excellent results; while in my own practice (devoted exclusively to diseases of women) I never operate in any other way, and neither the other operators nor myself have seen any of the bad results which Dr. Warren thinks must surely follow. I take it from the Doctor's article that he has had no practical experience with this method, but condemns it upon general principles.

In answer to his proposition that the use of the rubber band would "obstruct the circulation and cause swelling, mortification," etc., I would ask if it is usual for any portion

of the human anatomy, covered with a bandage, to swell? Of course if one was to bandage the forearm and leave the hand unbandaged, we should expect the hand to swell; but if we cover the hand as well as the forearm, there will be no danger of either swelling or inflammation. And what is true of the forearm is just as true of the uterine neck. If one was to put a tight bandage, elastic or otherwise, around the neck of the uterus close up to the vaginal juncture, and leave the balance of the neck unbandaged, there would surely be swelling and inflammation of the part so left; but no surgeon, unless very "*rash*" and "*inconsiderate*," would do such a thing."

The first time, I used rubber bands such as are used to hold memorandum books together, but I used enough of them to cover the entire uterine neck, and no bad results followed. Since that time I have had made for me by the Rubber Company wide bands shaped like the cervix, and large enough to cover the whole os and neck with the exception of a hole in the end large enough to admit a large sound or sponge tent. The elasticity of this band or cap will admit of its being easily slipped over the end of the os, while the lacerated edges are held together by a pair of tenaculum forceps, over which the rubber band is first passed. And I have never yet seen a single case become either swelled or inflamed from its use; but, on the contrary, the elastic bandage prevents both swelling and inflammation, just as an elastic bandage will do when applied to any other part of the body; it keeps up an equal pressure upon the blood vessels, and prevents blood enough getting into the cervix at any one time to produce inflammation; and then, as a natural sequence, union takes place much sooner than when sutures are used. It is by no means an uncommon thing for inflammation to follow when sutures are used, caused, without doubt, by the irritation produced by them, as it can hardly be caused by the freshening of the lacerated edges; on the contrary, when the rubber band or cap is used, there is nothing to cause inflammation, but there *is* equal

and uniform pressure all over the entire neck and os to prevent it.

I have sometimes used in place of the rubber bands made for me by the Rubber Company, common finger cats made out of rubber, and to be found in any drug store. These, with the small end cut off, answer the purpose very nicely.

The Doctor mentions, in his article, that it has been recommended that the operation be done in one's office, and send the patient a longer or shorter distance home with a rubber band in place of sutures, and recommends his readers to be extremely delicate about receiving such *rash* advice. That is just what I recommended in my article in the *Medical and Surgical Reporter* that operators do, and I practice what I then preached, and I do that very thing quite often—sometimes without the patient knowing that there has been any particular operation performed. When a patient presents herself at the office, and, upon examination, I find her with a lacerated cervix, I immediately freshen its edges and slip a rubber band over the cervix to hold it together, and if it is not too far, I send her home with the simple instruction to keep moderately quiet for a week, and to use daily injections of from a gallon to one-half gallon of hot water. At the end of a week or ten days, I remove the rubber band and expect to find union, and with a single exception I have always done so. In one case I had to repeat the operation before I got union.

I am well aware that this modification robs Emmet's operation of much of its magnitude and brings it down to minor surgery, but it makes his operation much easier and safer, which compensates for its loss of greatness. The method of using sutures is by no means an easy one for either the patient or the operator, and is next to impossible without etherizing the patient and having the aid of an assistant, even with Dr. Warren's ingenious apparatus described in his last article—all of which can be easily dispensed with when the rubber band is used instead of sutures. In his description of the operation by sutures he truly says: The patient should keep her bed, have her bowels locked up, and be kept free from all excitement, until union takes place and

the sutures are removed. Now why not save the woman all that trouble, pain and inconvenience, and the operator the tedious operation, by the plans detailed above? And I believe it to be our duty as physicians to the suffering women who apply to us for relief, not to inflict needless pain upon them, even though a brilliant operation is consigned to early oblivion.

It is a noticeable fact to Western and Southern surgeons that any instrument or operation originating outside of the great Eastern cities, are sneered at and called "*Western*" by the great medical luminaries of the East, until that instrument or operation becomes sufficiently popular to force them to recognize its merits. The operation for restoration of the perineal body by Dr. Edward W. Jenks, of Chicago, is a notable instance of that kind. Writers upon gynæcology in the East studiously avoided mentioning it in their books, until it became so popular with the profession everywhere that they were forced to give it place; and there are many other examples of such neglect—so many, in fact, that all Western and Southern surgeons well understand that nothing can be introduced in the East until its merits have been recognized elsewhere. I do not wish to be understood as casting any suspicion of this kind upon Dr. Warren, as I have no doubt he believes precisely as he writes. I only mention the above facts incidentally. However, I believe if he will once use the method of retaining the edges of the lacerated cervix together with a rubber band or cap such as I have detailed in this article, he will never again go to the trouble of introducing sutures.

54 *Monroe street.*

ART. III.—**Capillary Bronchitis.** Read before the Richmond Medical and Surgical Society—1881—By JOHN G. SKELTON, M. D., Late Lecturer on Obstetrics and Diseases of Women and Children, Medical College of Virginia, etc., Richmond, Va.

Mr. President,—Having accepted the proposition to open the discussion, at our present meeting, by a paper on *capillary bronchitis*, I presumed to obtain the indulgence of our fellow members, in the introduction of the subject, by a

brief review of acute bronchitis as it occurs in children, according to the account of various authors whose works I have been able to consult, and as this disease has presented itself within my own experience.

My reason for doing so, is the inseparable connection between these two questions, and the importance of the whole subject involved in them. I propose to confine our attention to the acute form, as it prevails through the period between earliest infancy and the fifth year of age. In this form and during this period of life, whether we regard the frequency of occurrence, the important structures involved, or the intensity of suffering and degree of danger which it may attain, acute bronchitis claims an importance second to no other disease of childhood, and its earliest symptoms should be watched with great care. This claim is strangely disregarded, frequently, by anxious mothers who have the best interests of their children at heart; but, yielding to prevailing fashions in dress, expose them to the effects of cold which may lead to fatal results. The most common termination of cold thus contracted is favorable, and the conservative powers of the system may prove adequate to carry the little invalid safely through, notwithstanding neglect, and without the aid of medicine; but the wiser course is to watch these milder symptoms, lest they become more serious, and we have to apprehend those results which sometimes follow the extension of inflammation from its most common situation in the larger bronchial tubes to their capillary extremities, and thus involve the lobules and air vesicles of the lungs.

In order to promote a closer consideration of our subject, allow me to notice briefly some of the anatomical structures and tissues which are involved in acute bronchitis.

After the bifurcation of the trachea (according to Flint, Gray, and others), the right and left bronchi enter the root of the lungs on their respective sides—the point of entrance being a little above the middle of the lungs, and more posteriorly than anteriorly. The right bronchus is wider and shorter than the left, and enters the lung opposite the fourth dorsal vertebra. The left bronchus enters opposite the fifth dorsal vertebra. Each bronchus, upon entering the sub-

stance of the lungs, divides and subdivides through the whole organ, the bronchial tubes becoming smaller until they obtain the name of *capillary tubes*—each of these terminating in a division of the pulmonary tissue, about one-twelfth of an inch in diameter, called a lobule. The bronchial tube is composed of fibrous membrane, with a layer of circular, unstriped, muscular fibre, lined by mucous membrane with ciliated columnar epithelium, through which the mucous follicles open. Laminæ of cartilage, such as compose the rings of the trachea, are found in the tubes until they are reduced in size to about one-fifth of an inch in diameter. When the tubes are reduced to this extent, the mucous follicles disappear also, and the tube becomes entirely membranous. As the tube enters the lobule, it is called a bronchiole, and resembles the structure of the vesicles. The bronchiole, after entering the lobule, divides several times, loses its circular form and composes now the intercellular passages—the sides and extremities being covered with numerous saccular dilatations, alveoli cells or vesicles. These cells, about one-seventy-fifth or one-hundredth of an inch in diameter, communicate freely with the intercellular passages. They are larger on the surface of the lung than in the interior. The membrane lining the cells is covered with squamous epithelium. The cells have strong walls, and are capable of great distention without rupture. It is within these cells that decarbonization of the blood takes place. The bronchioles, air vesicles, arteries, veins and lymphatics, with the areola tissue which unites them, constitute the parenchyma of the lungs.

Acute bronchitis may be primary or idiopathic; or secondary, such as occurs in the exanthemata and certain blood diseases.

Mechanical, as by minerals, etc.; and epidemic, as in influenza and catarrhal fevers, etc.

The *rational symptoms* are sometimes preceded by irritation or inflammation of the lining membrane of the nose, larynx, pharynx, trachea, successively, the bronchial tubes sooner or later taking on inflammatory action; or these tubes may become at once inflamed, without such continuity with the

surfaces above. Symptoms of invasion may be observed, such as languor and general debility, morbid sensitiveness to temperature, muscular pains about the head, back and limbs.

The *local symptoms*, after the period of invasion has passed over, become more or less intense, as sensations of burning or soreness on inspiration behind the sternum and along the sides, headache—general or frontal—becomee more acute, etc. The dyspnœa, not always distressing at first, becomes more oppressive later in the attack—this symptom being more grave in the child at the breast, because of the difficulty in receiving food, and is aggravated when there is coincident irritation of the nostrils with free secretion. Cough is not painful, but always a prominent symptom. This, at first, is dry and hoarse, until the second or third day, when the mucous secretion is established, which is at first thin, transparent, and more or less frothy, but soon becomes somewhat viscid and tenacious, assuming changes in color—yellowish or greenish. This becomes, in a few days, of an opaque, mucopurulent character, mixed with epithelial cells, ciliated cells, and sometimes with blood. These changes in secretion are difficult to observe in children under five years old, who do not expectorate; but the matter may be caught or noticed if ejected from the stomach by vomiting. In mild cases, the temperature is but little higher than normal, and in quite severe attacks does not rise so high as in pneumonia—102° F. being quite high for bronchitis. This feature of temperature is important in making out the diagnosis between bronchitis and pneumonia, and also some of the exanthemata before those are well developed. The attending fever is remittent, the paroxysms being higher in the evening and early night. The functions of digestion are generally affected, the secretions being suppressed; the appetite impaired, and the bowels constipated. The skin is easily kept moist by warmth and diaphoretics. The *tongue* is moist in the milder cases, with moderate coating of white fur. *Thirst* is generally well marked. Nausea, not often, occurs. The secretion of urine is diminished in quantity somewhat, in accordance with the severity of attack, and in a varying degree is colored by the

urates. The respiration is, in moderate cases, always more frequent, reaching thirty-five per minute, but varies with the degree of violence and character of the tubes involved, until, in the capillary form, it is attended with alarming anxiety, and is only accomplished with great labor.

This capillary form may come on at once, but generally succeeds the ordinary acute form. Besides the difficulty of respiration, this is recognized by signs of obstructed circulation—the imperfect decarbonization of blood causing darkness and lividity of complexion. In the onset of inflammation of the capillary vessels, we have pyrexia, but a very high temperature is not reached—perhaps 102° F. The rapidity of circulation and respiration is very great. The pulsations are as rapid as 150 a minute, while the respirations are 50 or 60 or 70 or even 100 in the same period. The warmth of surface becomes abated; and, if the condition proves progressive, coldness of the extremities and face, with increasing cyanosis, is soon accompanied by a change in the child's manner—restlessness giving way to indifference, and sleeplessness to drowsiness; this running into stupor, with still shorter respirations and more rapid, feeble pulsations, with *convulsions* to close the scene.

Broncho-pneumonia. Lobular pneumonia may occur in the course of acute bronchitis, and particularly if it assumes the capillary form—the clusters of collapsed lobules, with their connective tissue, becoming involved in inflammation. The condition is better expressed by the term *broncho-pneumonia*, as it includes a variable condition of bronchitis and vesicular pneumonia. The pneumonic consolidation exists in nodules the size of a pea and larger, scattered about through tracks of air containing tissue, which coalesce to form larger tracks. It will be found to prevail simultaneously in both lungs. It is more likely to be developed in that kind of capillary bronchitis which attends influenza, measles, whooping-cough, etc.

When inflammation in this way extends to the parenchyma of the lungs, the most prominent symptom, perhaps, is the increase of temperature—as in *lobar* pneumonia, reaching very soon 104° or 105° F. There is observed, also, less regu-

larity and remission in the paroxysms of fever. The rapidity of respiration is increased, and becomes as frequent as 100 and more per minute, the action of accessory muscles in respiration being violent, raising up the superior chest, while the diaphragm draws in the lower portion. The action of the alæ nasi is conspicuous. The cough becomes more painful.

The secretion from the bronchial tubes is diminished, and, if it can be examined, will be found to be more tenacious and rusty-colored, or containing streaks of blood. The power necessary for inspiration and expiration is comparatively less in the child than in the adult, in consequence of the soft and yielding character of the bony structure of the chest. It follows, that in broncho-pneumonia, as in capillary bronchitis with collapse, the muscular strength is sooner exhausted, when mechanical obstacles impede respiration.

Physical signs and diagnosis. The *anatomical changes* which are of most importance in acute bronchitis, in respect to the physical signs, are thickening and swelling of the walls of the bronchial tubes; the liquids contained in these tubes; the quantity of liquid present and the obstruction afforded to the removal of such liquids.

As a general rule, resonance on percussion is little affected in cases of ordinary degree of extent. Auscultation reveals, at first, only dry sounds—the sibilant and sonorous râles being heard singly or simultaneously over the chest, according to the extent and portions of the tubes involved, the tenacity and quantity of the liquid adhering to the tubes, and the thickening and diminished calibre of the same. These dry râles cannot be too much relied upon, in diagnosis, as they may arise from spasm of the same tubes, as occurs in asthma. When, in a few days, the secretion from the mucous coat is well established, these dry sounds, in bronchitis, are mixed up or superceded by other *râles*, which are moist or bubbling. These moist râles vary also, according to the size of the tubes, the density of liquids and amount contained—being coarser in the larger tubes and finer in the smaller bronchial branches. The finest of these moist râles concerned in bronchitis, is that called the *subcrepitant*, which

has its origin in the smaller ramifications of the tubes before entering the lobules. This subcrepitant râle is the nearest approach to the *crepitant* râle, which takes place in the vesicles themselves, and is caused by the separation of their walls on inspiration.

The moist sounds, like the dry, may fail in differential diagnosis, as they may originate in other liquids than mucus, as from *blood*, serum, etc. The subcrepitant râle indicates the presence of liquid in the finer bronchial tubes, but is not confined to bronchitis, occurring also in pneumonia, in œdema of the lungs, in phthisis, and pulmonary apoplexy. In bronchitis, the liquid which causes the subcrepitant sound is mucus; and, like all the other râles, dry and moist, is heard, in bronchitis, on both sides of the chest, when it is primary or idiopathic. Importance is due to the location in which these several sounds are heard. If confined to the middle third of the lung, it may be inferred that the larger tubes are involved; if to the upper and lower third, that the smaller tubes are also engaged. The respiratory murmur may be occasionally obscured, and renewed, after coughing, by the removal of obstructing mucus. Resonance, on percussion, enables us to distinguish *bronchitis* from *pneumonia* and *pleurisy*, as flatness attends both of the latter on one or both sides. In pneumonia, we have the crepitant râle and dull pain in the affected side. In pleurisy, we have sharp pain, and also the friction sounds. Between pneumonia and the capillary form, we may distinguish the crepitant râle of the former, on inspiration, from the subcrepitant, which is common to the expirating and the inspirating act.

Pneumonia is ushered in by a severe chill; the temperature, after re-action, is much higher; the cough is not so sharp and frequent; the expectorated matter is rusty-colored; redness of the cheek is characteristic, and there is not the cyanotic hue. In pneumonia, on physical examination, besides dullness, we find increased vocal resonance and fremitus and bronchial or tubular respiration. Bronchitis may so resemble whooping-cough, that, for the first three weeks, it may be hard to make out a differential diagnosis. The means which may avail consist in the sudden paroxysms of

cough with readiness to vomit; flushing and swelling of face during the paroxysms of cough, until the characteristic whoop will decide. Diagnosis is the more difficult between these two, because bronchitis is so constantly attendant upon whooping-cough, to some degree, in the beginning.

Morbid anatomy. A variable degree of redness, according to the degree of severity and extension of the attack, is observed over the mucous membrane. This is not so often seen in the smaller tubes as in those of larger and medium size. Thickening and softening of the walls of the tubes is found with a deposit of muco-purulent secretion. After severe and protracted attacks, the tubes are dilated somewhat irregularly, representing cavities or sacs of various dimensions.

If broncho-pneumonia has been developed, we find hard patches of lung of red or gray color, corresponding with the lobules and terminating branches of particular bronchial tubes, these patches having so coalesced as to make spaces so large as to resemble lobar-pneumonia. They contain *pus*, distributed through the affected parts in soft and yellow spots. When pulmonary collapse has only occurred, the condition is different. In pulmonary collapse, the vesicles have been cut off from access of the air by contraction of the thickening bronchial tubes, and by fluids in excessive quantity, or by adhesive lumps of partly inspissated matter in the smaller branches, until the residual air, being entirely exhausted in them, their walls have fallen together. The lobules containing the air vesicles are found shrunken in dimensions, violet colored, and heavy; so that, when detached from the healthy tissue, they sink in water. The pleura covering these is healthy. If air is forced into the bronchial tubes leading to such lobular mass, they become promptly distended, and resume their dimensions and relations to the adjoining tissue. The posterior surfaces of the lobes and their margins, being the most remote from the centre of the lungs, are found to be the situation in which most collapse has taken place.

Prognosis. Primary, simple bronchitis is comparatively free from danger, if not neglected, even in very young in-

fants. In this form, and in the secondary forms, the mildest case may resist all treatment; and the patient may become embarrassed with apneumatosis, and the dangers which result from capillary inflammation, collapse of lobules, or from broncho-pnuemonia. Delicacy of constitution and epidemic influences may contribute to this result. The irritability of system, during the period of dentition, may also lend unfavorable influences. The character of primary diseases which become complicated with bronchitis, will also help to determine the extent and severity of its effects. Every symptom diagnostic of collapse or lobular pneumonia, is unfavorable.

Treatment. In the milder forms of bronchitis, a strict adherence to suitable hygienic measures will most frequently comprise all the treatment necessary to avert danger, but a compliance with such course cannot often be obtained. Strict confinement to the cradle or the bed should be the rule. The air and temperature of the apartment is of great importance. The purity of air should be carefully regarded and proper ventilation secured. Dryness of air, where stoves are used, can be avoided by means of the evaporation of water. A temperature ranging from 65° to 70° should be maintained. The cradle or bed and bed-clothes should be made to correspond with the object of perfect comfort, and as much uniformity of temperature as possible. The diet should be simple and digestible, the mother's milk, in such as are at the breast, being the standard. When active treatment becomes necessary, this should be subordinate to the degree of inflammation, the febrile action, the strength of constitution, the idiosyncracies of the patient, and the relations which the attack may bear to those disorders which it may accompany. When ushered in by symptoms resembling croup, an emetic of ipecac is always proper. After the action of this, the relaxing expectorants are to be carefully adapted to the establishment of secretion along the bronchial tubes.

The warm bath will promote diaphoresis, reduce febrile heat, compose the nervous system, and equalize the circulation. The warm foot-bath, throughout every stage, is valuable, and may be improved sometimes by the addition of

mustard. As expectorants in the early stages, ipecac and squills, in the form of syrups, are often found suitable. Senega, in syrup or by infusion with liquorice, may be chosen in some cases. Along with these, demulcent infusions, as those of flaxseed, slippery elm, the bene leaf, etc., will be good adjuvants and serve to allay thirst, which is always more or less urgent. Small doses of the syrups mentioned, either alone or combined, may be given at intervals of two hours, according to the urgency of symptoms and the tolerance of the child. In the very young and delicate infant, it is best to avoid making undue impression with even such mild agents, when the administration is left to anxious friends or unskilful nurses. We think tartar emetic unsafe, except in cases of great inflammatory action, and with the expectation of its use for only a limited time, and under the sanction of the physician. This precaution in the use of depressing agents is necessary throughout the course of this disease, but more particularly in the infant and in the advanced stages. In following out plain indications which may be present at the time of our visit, to subdue excessive arterial action, we may overlook one principal feature in the character of bronchitis in children, that unfavorable terminations are most apt to occur in connection with debility. With the mild expectorants and diaphoretics, early in this affection, opium in some form may be proper. If feverish condition is obstinately kept up, with evidence of progress in the extent of inflammation, within the first few days, we have a more safe antiphlogistic remedy than tartar emetic, in the combination of calomel with ipecac, or Dover's powder. We prefer these when the paroxysms of fever are strong, the tongue furred, the skin unusually warm, the cough dry and attended with pain, and when the milder remedies have failed. The condition of the bowels, the degree of pain and of restlessness will govern us in deciding between the ipecac and Dover's powder. To a child two years old, half a grain of calomel may be given, in combination with one of the other medicines in corresponding dose, every two hours until the amount of a purgative dose has been taken. After satisfactory action on the secretions by the calomel, if feverish symptoms continue, the expectorants before mentioned may

be used, with the addition of bicarbonate of potash. For example, for a child two years old:

℞. Potass. bicarbonat.....ʒij
Syr. scillæ simp.....
Syr. ipecac.....āā f ʒj
Spirit. ether nitroc.....f ʒss
Syr. acaciæ. .....f ʒss
Aq. distillat. q. s. ad..... ..f ʒiij

M. S.: One teaspoonful every two hours.

We attach much importance to the use of bicarbonate of potash during the feverish stages. If the state of the skin, the temperature, the pulse and respiration show no abatement of symptoms, there may be added to each dose of the above mixture one drop of tincture of veratrum viride until its influence has been observed on the frequency of the pulse. We have found the veratrum viride to be the most safe and sure sedative to diminish the action of the heart in bronchitis and pneumonia. The attending fever is remittent, and paroxysms are periodical, being more so when malarial influences abound and when catarrhal fevers prevail.

This circumstance is suggestive of quinine. But, although we do regard this therapeutical application of quinine, we do not limit its influence to that of a simple antiperiodic, nor to that of an antipyretic. We think, through its action on the vaso motor nerves, it lessens the tendency to congestion, which inclines to the development of capillary bronchitis and broncho-pneumonia. Quinine proves antagonistic to malarial influences, which keep up fever and add to the general debility. It may be given to the amount of several grains each day, in broken doses, along with the other remedies—diaphoretics and expectorants—the latter being withdrawn when contra-indicated. The quinine may be either continued alone to favor convalescence, or we conjoin it under other circumstances with carbonate of ammonia or senega to promote expectoration of secretion too freely established. Bronchitis may require such care as we have detailed for one week or for a fortnight without dangerous symptoms threatening, and, in secondary cases, longer, according to prior affection.

We have had care in regard to the liability, at any time, to the occurrence of the capillary form, and to lobular pneu-

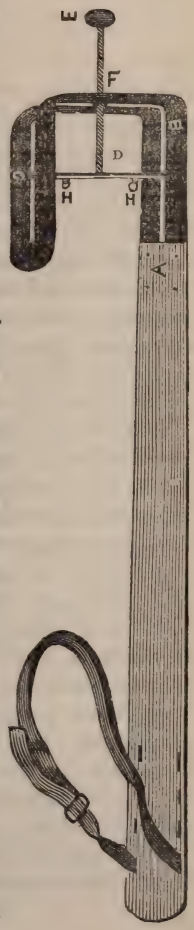
monia. As soon as treatment is first indicated, we advise mild rubefacients to the surface of the chest, and continue them, in varied forms, according to indications, using "camphor liniment" with flannel, and this with variable proportions of spirits turpentine or the aqua ammonia. As soon, in the progress of the complaint, as we see symptoms suggestive of unsafe degree of congestion or collapse, we prefer fermentations to the chest. Flaxseed or other poultices, or flannels wrung out of warm water, spongio piline, etc., all covered with oil-silk, and kept in position carefully with a bandage. Our favorite mode is in the corn-meal mush, made of proper consistence by boiling, and spread on and enveloped in linen, and bound in the bandage carefully around the chest. To the mush thus applied is added red pepper or mustard in small proportions—say one teaspoonful of either one to a four-ounce cupful of the poultice, this being intended to gently stimulate the exhalants to increased action and maintain capillary circulation on the surface. We do not approve of blisters, except under peculiar circumstances, and then only to rouse up re-action when other means have failed. When collapse of the air vessels has taken place, and the circulation is feeble, the skin pale and cool, the difficulty of breathing extreme and asphyxia threatened, and the case is desperate, without quick aid from new resources, we would look to oxygen gas with great hope. It has been suggested that an increase of oxygen in the air might be effected by burning chlorate of potash on live coals in the room with the patient, but a more satisfactory mode would be to manufacture the pure gas and administer by means of a gas bag. The imperfect decarbonization of the blood may thus be corrected until other means can be brought to bear favorably on the chances of the patient's life. In more ordinary cases of bronchitis, the inhalation of atomized fluids has been found convenient and useful. The vapor of water alone is often beneficial. This may be practised by means of a tin tube extending from the boiling kettle to the cradle of the patient.

Water, holding in solution those medicines which promote expectoration, or which render the vapor more agreeable, may be used by means of an atomizer. Benzoin, carbolic

acid, tolu, vinegar, muriate of ammonia, etc., have been used to great advantage.

It may not be needless to say, I assume no originality to myself on the subject of bronchitis, but that I have only taken pains to glean the observations of such good authorities as Smith, Tanner, Meigs and Pepper, Ellis, Flint, Hall, Cohen, Gray, Roberts, etc., appropriating what has accorded with my own observations, and to so present them to our fellows that the whole subject may be brought up and a full discussion elicited.

ART. IV.—**New Splint for Fracture of the Femur.** By W. A. TALLMADGE, M. D., Bradford, N. Y.



I have found this splint (a cut of which I send you) of great service in fractures of the femur, or in cases where a long splint and extension were needed. Its simplicity, cheapness and ease of construction are in its favor. A piece of thin wood, dressed down to four inches in width at one end, the upper gradually diminished to two and one-half at the lower, where the wood joins the iron, which should be about one-fourth inch in thickness, is riveted to the iron at A. The form of the iron band can readily be seen from the drawing. The space between the sides (B and C) should be about six inches. D is a piece of iron, movable in its slot at each side, to which the end of the thumb-screw (E) is riveted—the screw playing through a stationary nut at F. This movable iron bar has two rings (H H) attached, by means of riveted staples, to itself, about one-half inch from its ends.

The length of the splint may be from four to five feet long, as the desired length in any case can be obtained by means of the openings through which the perineal band, with

pad attached, may be passed. The same splint can be used for either side by turning it over. Having well padded the splint, and made everything right, apply long and rather wide adhesive straps to the inner and outer side of the leg, passing them down through the rings (H H), giving them a good strong tie. Apply the perineal band, and other dressing that may be necessary, and procure the extention by means of the screw (E), which should have a fine thread, and work neatly in its nut. In many cases, this splint will be found of more service than more expensive and elaborate ones.

Clinical Reports.

Enlarged Liver, Hypertrophied Heart, Œdema, etc.—Death—Autopsy. By W. H. SHEPHERD, M. D., Norfolk, Va

On the 13th of February, 1880, Dr. Wm. Selden and I were requested to see Miss C., æt. 42 years, supposed to be suffering from Bright's disease. I say "supposed," because she had been under homœopathic charge for some four months, and there was no medical man to whom we could appeal for the previous history of the case. This history, as gathered from the patient herself, and from some of her female friends, was about this:

For some years, she had suffered from profuse uterine hæmorrhage, great debility, and "shortness of breath"; disease of the heart had been suspected, and she had been told that she was laboring under disease of the kidneys, and that her urine was heavily loaded with albumen; there had been more or less swelling of the feet for some two years—this swelling, however, at times wholly disappearing; she had been unable, for a long time, to take much exercise, on account of weakness and dyspnœa; there was a suspicion, which, however, we decided was not well sustained, that she had, some twelve years before, suffered a slight attack of paralysis. We were called to the case, because it was thought, by her friends, that tapping was demanded, and for some reason the homœopathic attendant had declined this procedure.

On examination, the following condition presented: Patient anasarcous to an extreme degree, from her feet to the

middle of her chest—this condition, to a lesser degree, involving the arms and hands. The skin on the top of the right foot was commencing to slough from distension. Respiration, very shallow and hurried—almost gasping—and an upright position of the body was necessary for its continuance. There was slight effusion in the right pleural cavity, but no evidence of a similar abdominal condition. Signs and symptoms of cardiac involvement were present, indicating some degree of hypertrophy of the heart, but not sufficiently pronounced to cause suspicion of a very serious lesion. Owing to the anasarca, satisfactory knowledge of the state of the liver could not, at that visit, be had. The action of the kidneys was lessened, perhaps to a pint of discharge daily; alvine discharges, normal as to quality and amount; appetite, very fair. Tests of the urine, made within twenty-four hours from the date of our first visit, declared albumen absent, or not present in more than the slightest trace; phosphates were found in excess. A portion of the history of the case had as well be here concluded by the statement of the fact, that these urine tests were continued, from time to time, for several weeks, without finding albumen present.

For the relief of the more urgent symptoms, acupuncture of the feet and calves was at once practised, and a course of diuretics—consisting of digitalis, squills and bitartrate of potash—instituted, with the effect of so reducing the anasarca, in five or six days, that satisfactory abdominal examination was possible. The liver was found to be immensely enlarged, extending well down below a line drawn from one anterior-superior spinous-process of the ilium to the other, and it became a question as to whether we had to deal with a condition of venous engorgement, hydatids, abscess, malignant disease, or one of waxy liver. Aspiration was made at a number of points, both inter- and infra-costal, and failed to discover the existence of hydatids or of abscess—only an ounce or so of venous blood rewarding the exploration—and the absence of the usual signs and symptoms attending and marking malignant disease, narrowed the question of diagnosis to a decision between venous engorgement and waxy liver; and the fact that there was no venereal cachexia, made the existence of waxy liver extremely improbable. If a condition of engorgement, whence its origin? Was the anasarca resulting from the pressure of a greatly congested liver upon the vena cava? If so, what was causing this remora of blood in that viscus? There were no marked in-

dications of defective valvular action in the right side of the heart—nothing abnormal in the heart-sounds, save some slight prolongation of the systolic sound. Thrombosis of the cava, between the liver and the heart, might be the origo mali; and the venous losses to which the system had been subjected by uterine hæmorrhages, for several years, would have paved the way for thrombous formations. After the aspiration, the liver decreased in size, for some days, and then slowly regained its former proportions. Under continued acupuncture, and the exhibition of diuretics, the anasarca was confined to the lower limbs, and scarcely showed above the knees; and the general condition of the patient so improved that she enjoyed several drives into the country.

A tendency to somnolency had been remarked before the case was placed under our charge, and this continued for some three weeks after we were called to the patient, and then passed away, to return after an absence of some two or three weeks.

Nearly two months after the date of our first visit, we were hastily called to the lady, at 10 A. M., and found that she had been attacked by a convulsion at bed-time on the previous evening, and that this had been succeeded by three others during the night, and the fifth one—very severe—ensued whilst we were at the bedside. These convulsions were of an epileptiform character, and a state of either full or semi-coma existed between them. We could detect no paralysis.

In the absence of albuminuria and uræmia, we were forced to seek for other causes in the effort to account for the convulsions. If due to hyperæmia of the encephalon, what could have produced this condition, after the patient had retired, and was lying quietly in bed? Thrombosis of the sinuses of the dura mater is known to be not an uncommon cause of the coma and convulsions which so frequently forerun death from diarrhœa and dysentery, when children are the subjects; and it is possible that such may have been the condition in our patient, whose blood, doubtless, suffered much change from the prolonged serous loss, and it is not improbable that leucocythæmia was complicating the case, from which death of an apoplectic character frequently results. In the sixth convulsion, which occurred about three hours after our visit—that is, about 1 P. M.—the lady expired.

Autopsy was hurriedly made about four hours later, and under such surroundings as to preclude satisfactory thorough-

ness. The liver was first examined; and whilst there was absence of disease, the hyperæmia was greater than either Dr. Selden or myself had ever before seen, the liver extending, even after death, to within two inches of the pubic level. Upon removal from the cadaver, it disgorged a very great amount of blood, and lost much of the extreme density which had been previously noted. The pancreas and spleen were found to be somewhat congested. The kidneys were of normal aspect and condition, with the exception of some slight turgescence. The heart, as to its left side, was hypertrophied to an extreme degree—the ventricular wall being more than twenty-five lines in thickness, whilst about seven is, as is known, the average thickness in the normal state. In the left ventricle, a cretaceous formation was found, involving one or more of the columnæ carnæ. I cannot say that there was valvular insufficiency, as the crucial test was not applied. The left auricle was also hypertrophied. The right ventricular cavity was greatly encroached upon by the enlargement of the left ventricle, and by the great thickening of the inter-ventricular septum. The ascending cava, just before entering the auricle, was distended or enlarged into a sort of aneurismal pouch or sac. A well organized, tough, fibrinous deposit was found blocking one of the hepatic veins.

The cause of the cardiac hypertrophy we were unable to determine, but Dr. Selden offered a suggestion as to the cause of the extreme engorgement of the liver, which merits attention, both on account of its originality and plausibility. "May not the engorgement have resulted from the greatly diminished capacity of the right side of the heart, the diminution caused by the encroachment of the hypertrophic state of the left auricle and ventricle?" It certainly appears plausible, that lessened capacity of these two cavities (right auricle and ventricle) should produce remora in the vessels leading into the auricle, and, consequently, in viscera from which such vessels lead.

The aortic valve and the aorta presented nothing abnormal. It should, however, be stated that the examination of the vessel did not extend beyond the arch.

It is not the least interesting point in the case, that the necropsy disclosed a heart enlarged until its size reached that of the heart of an ordinary bullock, and yet physical signs of such condition had not been at all pronounced in life. I do not think that we often find such extensive increase of the liver, in the absence of disease of the viscus.

The marked shrinkage of the organ, after an aspiration which removed only a few ounces of blood, is not without its lesson.

Valentine's Raw-meat Juice in Cases of Inanition from Irritable Stomach. By J. HARDEE, M. D., Collierville, Ala.

A month since, I was called by a school-teacher, living eight miles distant, to visit his child, eighteen months old, which was in a deplorable state of emaciation from a diarrhœa of three weeks' duration. This was, in a measure, checked; but the irritation had extended to the stomach, and no nourishment—not even a teaspoonful of water—could be retained. Enemata of milk and beef-tea had been unsuccessful; and the father stated that, unless relieved, his child would starve to death. An impending obstetrical case prevented me from leaving home; and, knowing that Valentine's Raw-meat Juice had been used successfully in a number of hospitals, I gave him a bottle, with explicit directions, promising to go next day if desired. I heard nothing further until four weeks later, when I was called by Mr Young to his little girl of three years, which had been dreadfully burned the previous day, in the absence of the mother, by its clothes taking fire. The father stated, in a note, that the child constantly called for drink and nourishment, but could retain nothing whatever. I found an excoriating burn from the knees to the chin, including the thighs, genitals, abdomen, entire front of the throat, arms, hands (but not the neck and chin), which were entirely denuded of cuticle. The pulse indicated much depression; and, after soothing dressings, I left a bottle of meat juice, which was tried cautiously, retained and relished from the first. At a second visit, some days later, I found the child recovering; and as the family of the patient, first alluded to, lives on the next farm, I called on my way home. The mother brought the child out, perfectly well, running about, and stated that the meat essence was the first thing retained—had all been used, and she was satisfied had saved the child's life.

Medical investigation has shown that some of the occupations for children at kindergarten schools are calculated to injure the eyesight. Among these are the pricking of holes over a tracing on paper, braiding bright-colored bands of paper, or sewing fine silk upon tracings.

Correspondence.

Fly-Worms.

Mr. Editor,—It is not my intention to make much ado about a small matter, but as the discussion of "worms" is in order, I only propose to tell what I know about them—at least of the one variety of which I shall speak.

In the February (1881) No. of the *Medical Monthly*, Dr. E. Cutter, of New York, in a note to the editor, under the head of "Abnormal Entozoa in Man," calls attention to the manner in which the viviparous fly deposits its larvæ upon fresh human fæces; but to the most important aspect of the subject, namely, its bearing upon practical medicine, he does not allude. I have repeatedly been consulted by persons who claimed to be infested with worms, and would describe the grubs as appearing upon their fæcal discharges, as white in color, and about one-eighth of an inch in length, and moving rapidly with a wriggling motion over the surface of the recently discharged evacuations.

A patient consulting me in the warm months of the year, and giving the above history, reveals to my mind at once the nature of his case. Imagine a patient drugged by the mouth and by the rectum for weeks, or perhaps months, for a malady that exists only in his imagination and in the brain of his physician, to the great mortification of the latter and no little damage to his reputation. Such a case is not altogether hypothetical, for patients have come to me with the statement that they had been under the treatment of Dr. A. or Dr. B. for "pin-worms" or "thread-worms," but he had failed to cure them. They did not observe the flies depositing their living larvæ upon their fæces, and the rapid movements of the larvæ served to still further confirm them in the opinion that they were ejected from the bowel. When but a lad I first observed the manner of this fly—the rapidity with which it gave birth to its living offspring, and the rapidity and lively motion with which they wriggled away, and, I might say, out of its mother's maternal organs. I

have often watched this fly since, and never knew it deposit other than living larvæ. The fly is grayish in color, resembling the ordinary house-fly, but larger.

W. H. Bramblett, M. D.

Newbern, Va., March 10th, 1881.

Potassic Bromide and Calomel not Dangerous—Ammonium Chloride and Calomel Dangerous—Chlorate of Potash.

Mr. Editor,—There are one or two thoughts suggested by Dr. Michaux's article in your March number, entitled, "Incompatibility of Bromide of Potassium and Calomel," which I send you.

I have no doubt but that calomel and potassic bromide are incompatible to some extent, as is this drug and potassic iodide. But the resultant is certainly not so active as to make it dangerous to give them together. I have no doubt but that they are often given together in practice. On yesterday I gave a lady ten grains of the bromide in a mixture every three hours during the day, and at bed-time gave a pill containing 2 grains of calomel, 3 grains of blue mass, 3 grains of extract of colocynth., compound, and 2 grains of extract of hyoscyamus. This pill acted promptly and efficiently before day, but in no untoward degree. I have several times given calomel while patients were taking the bromide, without harm. It is well to give a dose smaller than usual in this connection, for I am satisfied the mercurial is more active.

I made a lady patient very sick once by not ordering her to discontinue an expectorant containing ammonium chloride at night when she took a pill containing calomel like the one named above. Here was a poison at once—ammoniated mercury! She suffered with symptoms of cholera morbus. This is possibly a very common accident, for we use a great deal of sal ammoniac in our cough mixtures, and may feel like giving a mercurial intercurrent as it were. It is hazardous.

It is hazardous also to use the common spoons in giving either the chloride or carbonate of ammonium. These spoons contain copper. The ammonia salt makes a green am-

moniated copper very readily, which is very irritating to the stomach and nauseates greatly.

I am satisfied that chlorate of potash makes calomel more active also, as table salt certainly does. One more atom of chlorine makes it a bi-chloride or corrosive sublimate. Chlorate of potash in ptyalism would seem to be unscientific, except for its virtue in stomatitis. It makes the mercurial more soluble. Very respectfully,

BENJ. H. RIGGS, M. D.

Selma, Ala., March 13th, 1881.

Is Sulphate of Quinia an Oxytocic?

Mr. Editor,—I would ask at the hands of the medical profession a further trial of sulphate of quinia, in doses of from 3 to 5 grains, as an oxytocic in tedious labor cases. The idea was suggested by administering it some time ago to a pregnant woman, when it brought on such violent uterine pains that I was induced to try it in a labor case at full term, when it acted like a charm.

JOSEPH S. BALDWIN, M. D.

Eklo, Baltimore county, Md., March 1st, 1881.

[*Note by the Editor.*—The idea of the oxytocic properties of quinine is by no means new—the subject having been under discussion in medical jorurnals for at least ten or or twelve years. But in the present undecided status of the question, it is right that every experience bearing on the subject should be recorded in order to enable some future reviewer of the subject to arrive at a positive conclusion.]

Original Translations.

From the French. By RICHARD H. LEMMON, M. D., Charlottesville, Va.

Treatment of Pain by Mechanical Vibrations (by M. Boudet, of Paris).—In a very interesting paper, relating to phenomena of inhibition, M. Brown-Séquard has finally determined "that chloroform, applied to the skin of an animal, produces a general anæsthesia without passing through the circulatory system"—the action of the nervous centres in

such instances being brought about by the irritation of the peripheral nerves. These inhibitory phenomena lead us to understand those instances of partial anæsthesia, which therapeutics sometimes effect, in certain diseases attended with exacerbations of pain.

From time immemorial, the physician has energetically striven against the symptom of pain; and it is proper to recognize the fact that he has been chiefly successful when employing the *irritant* or *revulsive* method. We do not intend to pass in review the many methods practised for producing irritation of the peripheral nerves. We will only notice the most important: *Acupuncture*, *ignipuncture*, *injections of water*, *metallotherapy*, *magnetism*, *the vibrations of the tuning-fork*, *electricity* in all its manifestations (static, galvanic and faradic); and lastly, all the *topical irritants*, such as *blisters*, *sinapisms*, *compresses saturated* with *ether* or *chloroform*, etc. If the mode of action of certain of these agents (the metals and the magnet, for example) is not as yet quite explicable, the identity of the results obtained from their employment permit us to form hypothetical conclusions regarding them. The variation in different observations in the production of local anæsthesia explain themselves by differences of *intensity of action* among the agents employed, and often also through a kind of idiosyncrasy of the subject of observation—an idiosyncrasy which may be either permanent or temporary. It is a phase quite often observable among the hysterical.

In discussing the topical irritants, we shall speak particularly of *chloroform*. Its action is most evidently the result of an irritation of the sensitive nerves. Prior to the conclusions of M. Brown-Séquard, M. Vulpian had already maintained the fact of a *local anæsthesia* producible from chloroform. Mark in what terms this eminent master expresses himself in regard to the pains of ataxy: I have already said that the painful smart, sometimes extremely acute, which the irritant applications produce, is the condition of their efficacy; it is in this way by exciting, in an intense and rather a special fashion, the extremities of peripheral cutaneous nerves—nerves having relations with posterior spinal roots and neighboring parts, such as where the pains of *tabes dorsalis* take their birth—that the applications of chloroform, sinapisms, etc., produce an alleviation, and often a temporary disappearance, of the pain." Injections of water have already yielded satisfactory proofs of their efficacy. Quite lately, M. Landowzy has pointed out the immense service afforded by this practice in relieving the irritating cough of consumptives.

"The injection," he says, "of water under the skin of a consumptive cougher quickly produces in the nerve expansions of the skin an irritation which, carried to the nervous centres, excite them in a novel manner, changing the state of tension existing, and which had been the special state conditional of the cough."

The result furnished by *acupuncture* and *ignipuncture* are too well known for us to insist upon here. To-day no one doubts but that the calming action of these agents is the result of an intense irritation of the peripheral nerves. The application of static electricity in this connection is of long standing. Duchenne, of Bologne, states that the employment of localized faradization (the skin being irritated by the passage of currents of high tension) for the relief of obstinate pain is attended with more rapid success than other methods of relief known to him. The continuous currents have a direct action upon nerve centres and radiating trunks. They produce at the points of the body, where the poles are applied, a revulsive effect, more or less violent, according to the special need. Indeed, in the hands of the inexperienced, the effect may be so violent as to cause a mortification of the tissues. Daily we prove the success of this method of alleviating pains which have resisted all other modes of treatment. We still have to state that the mode of action of metals and of magnets is enveloped in mystery. Several plausible explanations have been offered, but none of them amount to anything more than simple hypotheses—the facts still remaining unaccounted for.

The theory of vibrations, so energetically defined in France by Dr. Vigouroux, is, perhaps, the only one which gives any logical explanation of the observed phenomena. We intend to look up this question at some length at a future day, and at present will not dwell upon it.

The remaining method of treatment—that by the *vibrations of the tuning-fork*. About its efficacy there can be no question, producing mechanically a direct irritation; this causes an anæsthesia in cases of painful seizures (spasms, exacerbations of neuralgia, &c.), and causes a return of sensibility in cases of hemi-anæsthesia of hysterical patients. The simplicity of this therapeutical remedy and its absolute harmlessness have led us to a study of its applications, and the results which we have obtained are of an interest sufficiently great to merit the attention of the medical public.

The calming action of sonorous vibrations acting through the intervention of the auditory nerve is known all the world

over. In the case of sufferers from migraine, how much more at ease are they when quieted by music? The biblical story of the musician David, calming the frenzies of King Saul, is a very ancient instance of the nervous sedation produced by sonorous vibrations. Also witness the hysterical seizures produced by Mesmer at the end of the last century in those susceptible to music. Indeed, an entire volume would not suffice to record the effects which have been noticed of this anæsthesia-producing agent. In 1878, M. R. Vigouroux studied certain of these effects upon hysterical patients in the service of M. Charcot. He provided himself with a large tuning-fork, arranged to act after the fashion of a bow-string, and mounted on a huge sounding-board. He was enabled, through the use of this instrument, both to produce and dispel phenomena of hemi-anæsthesia quite as rapidly as could have been done either by the magnet or the electric spark. In a patient affected with locomotor ataxy, he succeeded in relieving crises of pain by having his legs placed on the sounding-board. After instancing a large number of experiments, M. Vigouroux establishes the fact that the vibrations of the tuning-fork have exactly the same physiological action as a pain-reliever as the metals, the magnet and static electricity. In a work published the following year, M. Schiff arrives theoretically at the same conclusions.

However, although the vibrations of the tuning-fork have certainly an anodyne effect, in order to obtain a rapid and full effect its action should be localized. To do this, it is enough to arm the terminal point of the instrument with a wooden button, which should be applied over the nerve or muscle which is the seat of the pain. In this way the conditions of the experiment are evidently changed. The sonorous vibrations are converted into purely mechanical vibrations, and a mechanical percussion is kept up on the nerve amounting to from 30–600 impacts per second, in accordance with the *tone* of the tuning fork. To facilitate the application of this method, we have had made by M. Verdin, a tuning-fork of small size, giving the la^2 (217.5 double vibrations per second), and mounted electrically like those manufactured by M. Konig. The bobbins of the electro-magnet are so disposed that you can, at will, make use of a weak or strong current—in the former case employing a Grenet, in the latter a Leclanché or Daniel cell—an obvious advantage in practice. A *planchette-support*, not more than 17 centimetres long and 7 broad, is held in the hand by a handle screwed on to the centre of the lower surface; and, on a part of the

rim where the vibrations are felt with the greatest intensity, there is screwed a small staff of brass about 10 centimetres in length, terminating in a small disc, which is applied over the area of that part of the body which you wish to excite. It is very important that the terminal disc should not be of a diameter greater than one centimetre; otherwise, the vibrations are diffused over a large surface, and the desired effect is not produced. Sometimes we replace the disc by a blunt point to better localize the vibrations. All the parts are movable. The apparatus can be easily dismounted, packed up, and placed in a case of small volume. Our first experiments were upon a healthy man without any peculiarity of sensibility. On applying the vibrating disc over a part of the skin sufficiently sensitive (the supra-orbital region, for example), we were able to produce a local analgesia, and often a very marked anæsthesia, lasting from eight to twenty minutes, according to the subject. The same experiments, repeated in different parts of the body, were attended with the same results, with this difference: That the effects are more rapid and more complete, first, where the application is over a sensitive nerve plexus; secondly, where the tissues are less thick, and the surface beneath affords resistance. The maximum effect is obtained over the temples, the gums and the mastoid processes in front; or, in a word, over those points where sensitive nerves may be compressed against a bony surface by the vibrating disc. Whenever the instrument is applied to the points we have mentioned, the walls of the cranium are shaken in unison with the vibrations of the tuning-fork, and there is experienced a peculiar sensation, likened by some subjects to the commencement of vertigo; with others, a marked tendency to sleep is produced. In the case of a migraine, and one who suffered most severely, the vibrations communicated very rapidly to the cranial walls, quickly produced a cessation of the trouble; also, when the trouble re-commenced, it was still potent to stop it.

Migraines, dyspeptics, and sufferers from rheumatism, have found in this remedy a precious relief from their pains. But the most effective and rapid results are found among those on whom the remedy is used for the relief of neuralgia. Applied near the foramina, through which pass the branches of the fifth pair, the rapid relief from the pain of which it is the seat is most gratifying. In neuralgia of the limbs, we have not yet had opportunity to test its value—the deep situation of the nerve trunks among the tissues rendering its application impossible. Still, in some localities, as the peroneal re-

gion, the olecranon, etc., it is possible to make use of it. Might it not be worth trial in the obstinate pains of locomotor ataxy and the osteoscopic pains of syphilis?

The extent of the application of this pain-reliever is without limit. The result of tentative experiments will alone decide its value; yet, in cranial neuralgias, its worth needs no further demonstration in our eyes. The rapidly-recurring mechanical impactions produce the local anæsthesia and analgesia. When the applications are made to the cranium, the transmission of the vibrations to the brain, as a whole, plays an important *rôle* in the effect produced.

For the present, we decline to study the interpretation, and will occupy ourselves with the observable phenomena. To some extent we understand the mechanical action of the tuning-fork when we recall how simple friction of the skin will often relieve acute pain. We do not think the rate of vibration of the tuning-fork matters very much. In the researches conducted at the Salpêtriere, M. Vigouroux has constantly obtained very similar results with tuning-forks of very different tone. It is not so much the intensity as the energy of the vibration—the relief being more rapid and complete when a vibration of considerable force is applied; hence the necessity of employing a powerful battery.

Such is the medication by means of mechanical vibrations inaugurated by M. Vigouroux, and which we propose to apply to the treatment of pain. We do not hold that its use will be attended by a complete cure of neuralgias; but think that, in the hands of the physician, it will be a precious weapon for the relief of pain. Its harmlessness and facility of application give it preference over those remedies which are, of themselves, of painful application, and whose administration is not unattended with danger.—*Le Progrès Médical.*

Phenyl-Sulphate of Soda Purgative.—At the meeting of the Société de Biologie of February 5th, M. Rabuteau called the attention of the Society to a new purgative—phenyl-sulphate of soda [sulpho-carbolate of soda]—from the use of which he had obtained most happy results. It should be administered in water in doses of 20 grammes [over 300 grains].—*La Tribune Medical*, Feb. 13th, 1881.

Crusade against the Corset.—Students of hygiene have from all time raised a cry of alarm at the excessive and dangerous use of the *corset*—this *carcere duro* of womankind. Must the health utterly give place to the fashion? Should not our women resolve to listen to the voice of reason and cease to bandage up their bodies to the great prejudice of their health

and plastic beauty for the specious reason of having a waist more or less small? Dr. Roth, in the columns of this journal, has treated the question with the hand of a master, demonstrating their danger beyond all cavil. *The Lancet* of to-day continues the crusade against the corset, and we take this extract from its columns: "If the ladies only knew how this fashion of wearing the corset originated they would most quickly and nimbly disembarrass themselves from their prison. Collateral historic evidence furnishes us with the information that the corset was invented by a butcher during the 13th century in order to punish his wife. Utterly unable to arrest the loquacity, immoderate gossip and tendency to *blab* of his spouse, this barbarous man, finding no other way effectual, screwed her up in a portable vise, which, through its pressure, arrested her stream of talk. Thus the corset. Once invented, its use spread in two ways: First. Other husbands, afflicted with similar helpmates to the one of him on whom was forced the necessity of invention, with great quickness availed themselves of the institution, and enclosed their dames in similar portable prisons. Secondly. [After the fashion of the fox in the fable, who having lost his own tail in a trap, persuades his associates that a fox without a tail is much the more proper sort of fox.—*Trans.*] Those afflicted, being strong-minded for the most part, and accustomed to take the lead in changes of style as well as in conversation, were imitated in their attire by their frailer sisters, and thus the fashion obtained. Now, it is true, that although there is no occasion for its use (for the reason that its present modification makes its function ineffective, I mean), through a spirit of contradiction handed down from mother to daughter, ladies still refuse to put them off. Having been made to wear them, they will continue to wear them to the end. And just here let me point out a beautiful illustration of the laws of heredity. The dames with whom the doctors find least trouble in persuading to give them up, are those of a sweet and amiable disposition, in whom, if they had lived in that day, there would have been least occasion for their disciplinary employment. Wonderful are the laws of biology! [*Note by the Translator.*—The last few lines are not *literally* translated.]

Analyses, Selections, etc.

Compressed Pellets of Morphia, etc., for Hypodermic Use.—Dr. H. A. Wilson, in a paper read before the Philadelphia County Medical Society, October 27, 1880, brings forward this new method of preserving and transporting medicines for hypodermic use. He has realized with the profession at large that there is danger and uncertainty in the action, as well as great inconvenience in carrying about hypodermic solutions. These difficulties and dangers have led, in many cases, to the use of powders. Even these, however, are troublesome to use and to carry. He finds the compressed pellets much more convenient to carry; he can always be sure of the amount of the agent he is administering, and finds them easy to handle. If morphia salts are compressed alone, they become extremely hard, and very slowly soluble. He finds sodium chloride, compressed with the morphia, gives increased bulk, is inert, and has a great affinity for water. It acts as a disintegrator, for upon coming in contact with water, it readily dissolves, and leaves the morphia in a fine state of subdivision, ready to be acted upon by the water. The sodium chloride, instead of causing pain or irritation, seems really to assist in promoting absorption. The muriate of morphia and chloride of sodium seem to answer the purpose better than any of the other morphia salts. It is less likely to change when kept for any length of time, and as the acid is the same as that found in sodium chloride, there is no chemical incompatibility. Atropia and morphia may be combined in these pellets. These pellets may be used by the mouth if desirable.—*Med. Times*, Jan. 1, 1881.

Iron in Anæmia of Infancy and Childhood.—Dr. A. Jacobi, of New York, in a paper read before the Medical Society of the County of New York, December 27, 1880, remarks: The preparations of iron most beneficial to children are, in my opinion, the following: The lactate, the tincture of the pomate, the iodide, the phosphate, the sub-carbonate, and the tincture of the chloride. The lactate and pomate are very digestible, and may be given wherever the indication for the use of some mild preparation of iron is established. The syrup of the iodide has an advantage over the other preparations of iron, because of its additional aid as an absorbent. Therefore, it is the proper remedy in cases of slow conva-

lescence after inflammations, resulting in exudation, particularly in diseases of the glands and lungs. It has, moreover, one peculiarity which makes it much more desirable than many other preparations, and that is, it is easily decomposed in the stomach. The iodine is set free, and acts as an antifermentative in the many cases of disturbed gastric digestion occurring even in normal children, whose circulation has been disturbed, or whose gastric secretions are certainly below their normal amount in consequence of a deficient supply of blood. The sub-carbonate of iron is a very mild preparation, easily digested, and, properly combined with a number of drugs, such as bismuth or bicarbonate of soda, is of considerable value when, in slow convalescence or progressive anæmia, this gastric catarrh threatens to interfere with the improvement in the general condition. The doses may be larger than those of any of the other preparations. The tincture of the chloride of iron, when neutral, is a preparation which is also easily digested. The tincture of the muriate of iron is the one amongst the ferruginous preparations, with the exception of those partly composed of ether—the acetate, for instance—which must be regarded as a vascular irritant, and wherever the action of the heart is lowered and blood pressure diminished, it is the preparation which will be found most beneficial. In anæmia attended by gastric catarrh and digestive incompetency in the upper portion of the small intestine, the pyrophosphate proves very satisfactory, and good effect results from the compound hypophosphites and phosphates.—*Archives of Med.*, Feb , 1881.

Hot-Water Vaginal Injections in Habitual Abortion.—Dr. M. Prince, of Laurinsburg, N C., reports the case of Mrs. ——, who married in 1872, and during that year became pregnant, but miscarried about the eighth month; and again became pregnant, and again miscarried about the eighth month. Her next three pregnancies ended in miscarriages at the third, second and seventh months, respectively, and again she miscarried at the fifth and sixth months. Her seventh pregnancy resulted in the delivery of a well-developed healthy child. After her first miscarriage, she suffered constantly with pain in the back and hips, and occasionally with leucorrhœa, which conditions were aggravated by the pregnant state. In accordance with the advice given by Emmet (in his *Principles and Practice of Gynœcology*, page 123) she was advised to inject one-half gallon of water, heated to about 110° F., into the vagina, each night at bedtime. This was

carried out faithfully during the last pregnancy with the above stated result, and the result may fairly be attributed to the treatment. When the treatment was commenced, there was considerable complaint of pain in the back and hips, and some discharge from the vagina The very first injection of hot water relieved this, to an extent, and in a few days there was a marked improvement in her general condition. Several times during her last pregnancy she was threatened with miscarriages, but always when the injections were neglected, and were invariably relieved by their use.—*N. C. Med. Journal*, Feb., 1881.

Syphilis.—This subject has for several meetings received attention by the St. Louis Medical Society, and several interesting papers upon certain points have been read before the Society. Dr. W. H. Ford expressed himself in favor of the opinion that syphilitic virus may enter the economy directly through the unbroken cutaneous or mucous surfaces. It is only necessary to apply to or rub into the skin such substances as oil, mercury and sulphur to secure their absorption, and this without a real or visible abrasion of the epithelium, and especially if the tegumentary cells be either naturally or accidentally kept moist. This is equally true of syphilis, glanders, gonorrhœa, the poison of dissecting rooms, *post mortems*, etc. Bryant, Holmes, Erichson and Paget recognize this possibility.

Dr. R. S. Anderson repudiated the idea that secondary syphilis is communicable as secondary syphilis. This can only mean the person contracting syphilis from secondary lesions merely continues the disease from the point or stage at which he becomes infected, omitting all previous or primary manifestations. If this is true, then syphilis is separated from all analogy with other contagious diseases, and set in a solitary category of its own. In scarlatina, variola, vaccinia, and all other personally contagious diseases, it matters not whether infection occurs in the beginning, middle or end of their courses, the disease in the infected individual starts *ab initio*. Now, while syphilis differs from the others in the self-limiting feature, it is in exact similarity with them in other respects, and like them, does not permit of being engrafted, ready made, upon a new subject without going through the primary stages. Such a thing as the direct production of secondary lesions in kind, or in any other form, is impossible. Secondary syphilis is not always necessarily preceded by a chancre when infection occurs through the natural pas-

sages; and without a wound there is no chancre. But this does not argue that there is no primary syphilis. The vaccine disease may be produced without the vaccine sore, by absorption of the virus through the mucous membrane, and it is stated that this method of vaccination has long been practised in China. Dr. Le Grand Atwood thinks nothing is more likely to produce an exfoliation of epithelium than moisture and pressure coupled with prolonged sojourn. Pressure implies a degree of friction, while moisture, by capillary attraction, swells and softens the epidermic cells. Prolonged sojourn gives rise to rancidity with corroding properties in pus or animal virus, and it would be surprising if the external layer was not broken, and a surface largely supplied with blood-vessels, cellular tissue, lymphatics and nerves exposed for absorbent purposes. In this way a channel of communication is established for the introduction of the poison.—*St. Louis Med. & Surg. Journal*, Feb., 1881.

Ovariotomy—New Method.—Dr. Emil Noeggerath, of New York city, read before the Medical Society of the County of New York, January 24th, 1881, a paper on ovariotomy, in which several new points were brought out. The three great dangers of the operation, he thinks, are hæmorrhage, shock, and septicæmia. Regarding the first, he had nothing new to add. The principal element of shock is a lowering of temperature. This results from exposing, for a long time, a large surface to evaporation; from the prolonged contact of the contents of the abdomen to fingers, instruments, etc., and their unavoidable dislocation of other organs than the diseased ovary; and from the paralyzing effect upon the heart produced by the anæsthetic used, and its production of vomiting. To overcome vomiting, he gives bromide of potassium for two days before the operation, and one or more doses of chloral, by the rectum, after the operation. Since the adoption of this treatment, he rarely has vomiting after ovariotomy. He prefers chloroform, because it produces more profound narcosis, and less vomiting and coughing during and after ovariotomy. To overcome any undue lowering of the temperature during the operation, he places the patient on a rubber bed filled with water heated to 100° or 102° F. One of its great advantages is its effect on the reflex centres of the spinal cord. Experimental researches have shown that abdominal hyperæmia is an essential element, and a direct consequence of, shock; and we can measure the degree of shock, during ovariotomy, by the amount

of hyperæmia found inside the abdominal cavity. He thinks these difficulties and dangers are overcome by the use of the hot-water bed. To avoid the *third and most important danger*—the formation of septic material in the abdominal cavity after the operation—his plan is to cut through the skin, the subcutaneous layer of fat, and the fascia superficialis; and then, instead of going on through into the peritoneal cavity, he plunges the trocar at once into the cyst and empties it. If he finds that the liquid is blood, he proceeds with the operation; but if it contains pus, decomposed blood, or dark, grumous fluid, he injects through the tube attached to the trocar about half as much of a $2\frac{1}{2}$ per cent. solution of carbolic acid as the fluid measured when removed. This is allowed to remain in the cyst for a while, and is then withdrawn. It is done in order to remove the possibility of infecting matter passing from the cyst into the abdominal cavity. After the cyst is emptied, he depresses the handle of the trocar, and opens the peritoneum on the other end. This method, he thinks, simplifies the operation, lessens the possibility of septic matter entering the peritoneal cavity, and lessens the size of the peritoneal incision. He is in the habit of leaving the patient for a week on the water bed, but fills it with cold water as soon as any rise of temperature calls for antipyretic measures. If symptoms of nervous depression or collapse occur, the bed is filled again with hot water, and its stimulating effects secured. He thought, in most cases, the intra-peritoneal method was the best treatment for the pedicle. Some cases require drainage, and he thought it should be done through Douglas' cul-de-sac. There are some cases in which this cannot be resorted to. When this is the case, he uses what he calls the permanent full bath, the water being allowed to come and remain in contact with the peritoneal cavity. The water must be maintained at an even temperature. He proposes to employ the permanent bath as a substitute for ordinary drainage in ovariotomy; and, above all, after Freund's operation, after the removal of fibroid tumors, and after Cæsarean section.

This paper elicited considerable discussion, the participants being Drs. T. A. Emmet, Jauvrin, William H. Chamberlain, and Bache Emmet. Most of the speakers, while objecting to some of the conclusions, saw much that recommended it.—*Med. Record*, Feb. 26, 1881.

Lister's Method.—Dr. R. C. McCleod, in a paper read before the Beech-Fork Medical Association, and published

in the January number, 1881, of the *Medical Herald*, remarks:

"Theoretically, Lister's method is perfect; in practice, its success is not constant. It would be successful in all cases, were the healing of a wound a purely local act, under the sole influence of local conditions of tissue and of treatment. But this is far from being the case. The repair of a wound is a process that is materially influenced for good or evil by the state of the patient's constitution; when that is healthy and pure, the wound will readily heal under any favorable local conditions, and under none more readily than under the antiseptic method. When the blood is vitiated, and the constitution depraved, no merely local method of treatment can be trusted as an infallible preventive of local morbid action. But even in such unfavorable cases as these, where suppuration and sloughs are rather the consequence of a bad constitutional than a morbid local condition, the antiseptic method—by lessening the tendency to decomposition and to putrefactive fermentative changes in the wound, and by rapidly removing and destroying noxious materials and effluvia—will do more than any other plan of treatment to limit the morbid local action that results from the continued presence in and around the wound of septic matter, and to prevent those grave forms of constitutional sequences that inevitably force its absorption into the system."

Castration for Hysteria.—Under this title, a French journal gives an account of a case which was presented to the Berlin Medical Society some months ago. Dr. Israel presented to the Society a young woman, twenty-three years old, cured of severe hysteria by "Battey's operation," of which she bore the cicatrix. The patient had suffered for some years from obstinate vomiting, accompanied by severe ovarian pains. She became extremely weak and anæmic. Many surgeons advised the operation, and she gradually arrived at the conviction that castration was the only remedy for her sad state. The operation was performed under chloroform, "with all antiseptic precautions." During the first three days after the operation, there was extreme tenderness in the lower part of the abdomen, and ice was obliged to be constantly applied. At the same time there was retention of urine, which only passed off at the end of twelve days. A week after the operation the vomiting had ceased, and the pain in the ovarian region had disappeared. The patient's cure remained permanent. One detail, however, of this beautiful illustration of the value of "öophorectomy," re-

mains to be mentioned, and it is not unimportant. The operation was a pretended one. A superficial wound only was made. The result certainly justified the means.—*London Lancet.*

Chlorate of Potassium—Its Dangerous Use.—Dr. A. Jacobi writes:—After all the previous remarks, the practical point I wish to make is this, that chlorate of potassium is by no means an indifferent remedy; that it can prove and has proved dangerous and fatal in a number of instances, producing one of the most dangerous diseases—acute nephritis. We are not very careful in regard to the doses of alkalies in general; but in regard to the chlorate we ought to be very particular—the more so, as the drug, from its well-known, either authentic or alleged effects, has risen or descended into the ranks of popular medicines. Chlorate of potassium or sodium is used, perhaps, more than any other drug I am aware of. Its doses, in domestic administration, are not weighed, but estimated; it is not bought by the dram or ounce, but by the ten or twenty cents worth. It is given indiscriminately to young and old, for days or even weeks, for the public are more given to taking hold of a remedy than to heed warnings. Besides, it has appeared to me that acute nephritis is a much more frequent occurrence now than it was twenty years ago. Chronic nephritis is certainly met with much more frequently than formerly; and I know that many a death-certificate ought to bear the inscription of nephritis instead of meningitis, convulsions, or acute pulmonary œdema. Why is that? Partly, assuredly, because, for twenty years past, diphtheria has given rise to numerous cases of nephritis; partly, however, I am afraid, because of the recklessness with which chlorate of potassium has become a popular remedy.—*Louisville Med. News*, Jan., 1881.

Oxalis Acetosella as a Caustic.—Dr. Edgar Eltinge thinks highly of the expressed, inspissated juice of wood-sorrel as a caustic. He has successfully used it on his own lips to remove an epithelioma. Three successive applications were made at intervals of twelve hours each, which were sufficient to entirely destroy the growth; the resulting eschar separated on the eighth day, leaving a healthy, granulating surface, which rapidly healed. Not a drop of blood was produced. A previous attempt had been made to destroy the disease with chloride of zinc paste, but the excessive hæmorrhage prevented its thorough application. After the use of

the wood-sorrel, the glandular tumefactions rapidly subsided; and now, at the end of two years, there is no sign of a return. The pain produced by this caustic is intense, but the duration did not exceed half an hour after each application. *Annals Anat. and Surg*, Feb. 1881.

Treatment of Fractures.—An advance in the treatment of fractures has been made, in the recognition of the fallacy of the provisional or temporary dressings, which defers the permanent adjustment of the fracture and the application of apparatus until the inflammation and swelling have subsided. This old practice was based on the theory that substantial repair does not begin until several days after the injury. The teaching of modern surgical pathology and practice, shows that repair commences immediately after injury; and the sooner the fractured limb is adjusted and placed in a fixed apparatus, the better it will be for the patient's comfort and the general reparative process. The proper course is to fix the bones in as perfect apposition as possible, and keep them in that position until repair takes place. The great improvement is in the use of plastic splints. The several varieties of these are plaster of Paris, starch and liquid glass. Of these, the plaster of Paris is the best. It is cheap, light, easily adjusted, and dries quickly. Cotton batting, used next to the limb, protects it and leaves room for the swelling. Repair goes on and confinement is avoided. The danger of shortening is lessened.—Dr. R. C. McCleod, *Med. Herald*, Feb., 1881.

Traumatism or Constitutional Dyscrasia.—Dr. Sayre mentions a case, which serves to show the fallacy of considering hip-joint disease, etc., in the light of a constitutional dyscrasia. He was called, in consultation, to see a lady who was suffering from some injury received during her recent confinement. While talking to the patient, he saw the nurse take hold of the child and violently abduct its thighs. He at once remarked to the attending physician, that he would not be surprised if that child had hip-joint disease, as a result of that rough handling. Sure enough, in a short time the child was brought to him with developing hip disease.

Strychnia an Antidote to Alcohol.—According to a recent statement in the *Bulletin de Therapeutique*, by Prof. Luton, he has proven, by experiments, that strychnia is the best physiological remedy for chronic alcoholism. He has used

hypodermic injections of strychnia sulphate in delirium tremens with excellent results, relieving the tetanic rigidity and relieving the delirium.

Hysterotomy and Ovariotomy Combined.—Dr. P. V. Schenck, in charge of the St. Louis (Mo.) Female Hospital, has lately successfully performed this combined operation on an insane patient, 47 years old. The anterior abdominal walls were extensively adherent to the tumor, and the uterus was enveloped in the multilocular cyst. There was no pedicle, and to apply the clamp, a pedicle had to be formed of the peritoneal covering of the cyst. The operation was performed antiseptically.—*Bost. Med. and Surg. Jour.*, Aug. 12, 1880.

Remedy for Asthmatic Paroxysms.—According to the *Medical Gazette*, Prof. Roberts Bartholow, Philadelphia, says the following prescription gives "relief in a few minutes, and sometimes the relief is permanent":

℞ Tinct. lobeliæ.....ʒij
Ammon. iodid.....ʒiij
Ammon. bromide.....ʒiv
Syrup tolu.....ʒiv
M. S. Teaspoonful every one to four hours.

Iodoform for Nasal Catarrh.—Dr. H. A. Eberle, of Webster City, Iowa, contributes the following prescription to a late number of the *Michigan Medical News:*

℞ Iodoform (finely powdered).....grs. lx
Ext. geranium (solid).....grs. x
Carbolic acid.....gtt. xv
Vaseline [or cosmoline].....q. s. ʒj
M. Make bougies of absorbent cotton, saturated with this ointment, and introduce up the nose at bed time. Leave in all night and blow out in the morning. Repeat for ten days, when the most obstinate case of catarrh will yield. Scarcely any other treatment is necessary except the occasional use of the posterior nasal douche, with some cleansing fluid, such as a weak tepid solution of chloride of sodium (common table salt), before introducing the "iodoforminized tent."

Phantom Tumors—Anæsthetics Aid their Diagnosis.—Dr. W. H. Taylor said that Montgomery reports a number of cases of phantom tumors where grievous mistakes were made. Hein, an authority on extra-uterine pregnancy, watched one

of these cases for about two months; and, under the impression that it was a case of extra-uterine pregnancy, had Defenbach operate, who, after opening the abdomen, found nothing to justify the suspicion that pregnancy had existed. Lizars had a case that had travelled around among the different physicians, being treated for various tumors of the abdomen for eight years. He opened the abdomen and found nothing. It was only after Simpson had introduced chloroform and applied it as a diagnostic aid in this class of cases that definite conclusions were derived. He remarked that there was a case that had been coming to the Miami College for the past three years. She was hysterical and had a tumor of six inches in circumference, and he had demonstrated to the class under chloroform that it would disappear. The patient had no symptom of lung trouble, but she would bring blood with her and declare she had spit it up. Afterwards, she would bring small pebbles and declare that she had passed them with her urine. She also had retention of urine, and at times it had to be drawn off with a catheter. There are cases on record of lower animals acting in this same manner. Montgomery quotes from Harvey, regarding animals after coition, or after heat without coition, that they would go through all the phases of pregnancy. The speaker said: A year or so ago I read a paper on a case of supposed pregnancy. The woman, newly married, had been a widow but had had no child for twelve years; her menses were suppressed, and she felt quickening. Lying in bed one night, she heard a noise which frightened her, and she began to flood, giving rise to the opinion that abortion was threatened. Without any professional advice, she took morphia which she supposed arrested the abortion. The patient had all the baby clothes made. The time for delivery passing, her friends insisted on a medical examination. The speaker was consulted and made two careful examinations, but could find no sign of the child, nor had she been delivered.

Dr. C. P. Judkins, while in the hospital, saw a phantom tumor painted with iodine for thirty days, when a diagnosis was made.—*Proceedings Cincinnati Medical Society in Cincinnati Lancet and Clinic*, February, 1881.

Quinia as an Antipyretic.—Dr. Roberts Bartholow, of Philadelphia, thinks that quinia unquestionably holds the first position as an antipyretic. After an exhaustive examination of quinia, salicylic acid, resorcin, chloral, digitalis, aconite, veratrum viride, cold baths, and all methods of hydrothera-

py, Liebermeister holds that quinia is entitled to the first place as an antipyretic, and that if he was restricted to one agent he would choose quinia. Although this is the testimony of but one clinician, a representative of the German school, his opinion is but an echo of the general sentiment among the more enlightened thinkers. The utility of quinia consists in its remarkable power to reduce temperature, conjoined with a minimum of evil effects. It reduces temperature by its influence over the vital activity of protoplasm and over the so-called ozonizing action of the blood. The diminution in the oxidizing processes is shown in the great reduction of urea formation. The quantity of quinia necessary to effect any considerable reduction of temperature has been pretty closely ascertained—not less than twenty grains can have any distinct antipyretic effect. It is true in malarial diseases much smaller doses may diminish fever, but here another element enters the problem. Our German *confrères* give twenty, thirty, forty, even sixty grains for the antipyretic effect, and repeat it as may be necessary, to keep the temperature down at the proper level, and withhold when the result is attained, until required again. The popular, and, to some small extent, the professional opinion, that large doses of quinia affect the ears unfavorably, has no support in my experience. I have used large doses with excellent results in inflammation of the middle ear. That it has any other injurious effect on the human constitution, in proper medicinal doses, seems to me not at all probable. That quinia exercises the same curative influence over fevers —typhoid for example—that it does over malarial diseases, cannot be entertained for one moment. The effect it has on the course of fever is due to its antipyretic property; on malarial diseases, the action is specific and particular. It is effective, then, in the treatment of fever according to the degree in which it reduces the temperature, and the value of this is determined by the importance of the febrile element in the morbid states.—*New York Med. Jour.*, February, 1881.

A New Disease.—A boy lately died at the Sainte Eugénie Hospital, Paris, of hydrophobia. His saliva, taken four hours after death, has been found by M. Pasteur to have remarkable properties, causing what appears to be a new disease. Two rabbits immediately inoculated with the saliva, diluted, died in about thirty-six hours. Other rabbits were inoculated with the saliva, or with the blood of the first, and death ensued even more rapidly. The process was several

times repeated, and with like effects. The animal, in five or six hours, loses appetite, afterward becomes weak and paralyzed, and at length dies of asphyxia. The windpipe is a good deal congested, and shows hæmorrhage. There is also a swelling of the ganglions on either side, and of the groin and axillæ, etc. M. Pasteur has observed in the blood of the inoculated animals a small organism, or microbe, which (by his method of artificial cultivation) he finds good reason to regard as the agent of the malady. It is a very short rod, slightly contracted about the middle; a sort of areola appears round it, probably due to mucous substance. It is somewhat like the microbe of chicken cholera, but differs entirely in its effects. Fowls inoculated with it are not in the least affected. It is further singular, that while the rabbit is always so quickly killed by the effect of inoculation, the guinea-pig, so closely related to the rabbit, retains its vigor and appetite weeks after inoculation. Whether there may not in this case be a long incubation of the virus, remains *sub judice*. The new malady seems thus far distinct from rabies in the absence of the usual incubation, the nature of the anatomical lesions, and the transmission by inoculation with the blood of the dead animal. Further, dogs inoculated with the boy's saliva died in a few days without presenting rabid symptoms. M. Pasteur, however, thinks it would be rash to affirm the absolute independence of the two disorders; and if rabies may be attributed to the presence of a microscopic organism, some hope is offered that science may find a means of attenuating the action of that terrible malady.—*Scientific American*, March 19, 1881.

Supposed Effect of Quinia on the Fever of Diphtheria.—Dr. D. J. Roberts, of Tennessee, contributed to the *Southern Practitioner* an article on the treatment of diphtheria. In his article, he protests against the use of alcohol, and warmly advocates the use of quinia in the treatment of diphtheria: the latter to neutralize any malarial cachixia, but more especially for its antipyretic properties, as he finds it lowers the temperature from one to three degrees, when its use is discontinued. Dr. Rufus R. Griswood, of Rocky Hill, Conn., in commenting upon Dr. Roberts' views upon the above-mentioned points, writes: In the majority of cases of this disease of much severity, about the second or third day from its full development, the thermometric indications of fever will abate two or three degrees or more, whether you give quinine or not; and the degree of abatement is generally

proportioned to the degree of severity and malignancy of the case. The heavier the disease, and the more profoundly the system is affected by the poison, the more obvious will be the reduction of the fever; and in many cases the patient will pass from a dynamic to an adynamic condition in the space of a few hours. The early appearance of this adynamic condition, which is something more than a mere diminution in the severity of the fever, but which carries the fever down with it, is one of the special clinical differences that aids in diagnosticating the difference between a case of pure membranous croup and a case of true diphtheria; and so far from indicating the use of any antipyretics, it calls loudly for the exhibition of stimulation as an aid in sustaining the action of the heart against the depressing influence of diphtheritic poison. The exhibition of quinine is not contra, but is all the more indicated; but not as an antipyretic, but as a tonic. Do not discontinue it when the fever has gone done, but give it, or some equivalent, with the hope of sustaining the flagging energies of the heart. To attribute a pathological result to some therapeutical effect is a common mistake, and one he thinks Dr. Roberts makes.—*Clinical News*, February, 1881.

Nerve-Stretching in Locomotor Ataxy.—A London correspondent to the *American Practitioner*, March, 1881, writes: Nerve-stretching in various diseases has lately been brought very prominently forward, and is strongly advocated. M. Debove, of Paris, gave an account, at a meeting of the Société Médicale des Hopitaux, of a case in which the operation had been performed by him for the "lightning" pains of locomotor ataxy. Previously, the only drug that gave any relief was morphia. This had been greatly abused, and so great was the tolerance established that the patient felt no benefit when less than three grains were given during the day. The operation was performed first on one sciatic nerve and then on the other, and subsequently on both crural nerves. Three weeks after the operation the patient had felt not one single pain, while the incoördination was greatly improved. Encouraged by this success, M. Gillette operated, on December 16th, on a patient of M. Debove. In this case there were, in addition to the more ordinary symptoms, incessant pains in both upper limbs, which underwent exacerbations. The median and radial nerves on the right side were stretched. Since the operation the pain in the right upper limb has much diminished, while in the left upper limb and in both

lower extremities it has entirely ceased. The plantar anæsthesia has very much diminished, the incoördination of movement is much less marked, and he can now walk without assistance. He refuses to take morphine, saying that "his present pains are as nothing compared with those which he formerly endured." The method of operating used by M. Gillette is simple. He reaches the nerve by an incision two and a half inches long; passes a grooved director, with the convexity upwards under it; and, grasping the two ends of the director, makes traction in a line perpendicular to the axis of the nerve, with force sufficient to lift it about two inches. No fear of rupturing the nerve need be entertained, as it has been found that the radial nerve—to take an instance—will not give way until a force of over ninety-two pounds is applied.

About Christmas, a railway signal-man was brought to St. Mary's Hospital with an injury to the hand. An attempt was made to save it. For about two weeks everything went on well, but at the end of that time tetanus set in. After a consultation, nerve-stretching was decided on, and Mr. Pepper, the attending surgeon, cut down upon, exposed and made traction upon the median and radial nerves. The operation was only temporarily beneficial. The object of the operation was to cut off any peripheral irritation by the wound. The whole thing is in its infancy, but is exciting much interest.

Bee-Tea for Strangury.—Dr. W. B. Jones, of Summerville, Ark., writes to the *Medical Brief*, March, 1881: Dr. W. H. Taylor says in the last number of your journal: "I do not believe it is generally known to the profession that bee-tea will give prompt relief in strangury, produced by the application of fly-blister." He asks that a trial be given and results reported. About twenty years ago, I read in the *Medical Adviser*—a medical work written by Rezin Thompson, of Nashville, Tenn.—that, in his hands, bee-tea was almost a never-failing remedy in strangury. Since that time I have treated quite a number of cases of strangury from different causes with bee-tea, and it has never yet disappointed me, where there was no actual mechanical obstruction.

The Necessity of Removing all of the Ovarian Stroma, in Order to Secure the Full Benefits of Battey's Operation.—Regarding the intra-peritoneal method of dealing with the pedicle of an ovarian tumor, Goodell writes: "You might

also suppose that the distal end of the ligatured stalk would slough and expose the woman to septic absorption. But sloughing rarely happens, and for the following reasons: The peritoneal surfaces on each side of the narrow and deep gutter made by the fine silk will bulge over and span the gap. Adhesion then takes place between the two, and the blood-vessels which shoot over from the proximal side of the ligature will carry blood into the distal end, or lymph exuded by the irritation of the ligature, will throw a living bridge across the gutter." The same changes, we think, may go on after Battey's operation, and any ovarian stroma left will be nourished, remain functionally active, and interfere with the success of the operation.

Silk Ligature not Encysted or Absorbed.—A patient came from the country to this city to have ovariotomy performed. The tumor was removed, and the pedicle, ligated with antiseptic silk, was dropped into the peritoneal cavity. Her recovery was rapid—so rapid, in fact, that she left the city without paying her board at the hospital or her physician. One year after the operation, the silk ligature worked out through the abdominal incision. She writes to the hospital that she is not surprised at the hard time she had while in that institution, as they actually gave her food with great bunches of thread in it, and one of them had recently worked out of her stomach.

Test for Infiltrated Cancer of Breast.—The mamma lying loosely on the pectoralis major muscle, if, in consequence of infiltration, it has become attached to that muscle, will move with it when the arm is moved. In removal of the breast, the part towards the axilla should be removed last, because cancer grows in that direction, and because the principal blood supply to the mammary gland is from the vessels of that region.—*Canada Med. and Surg. Jour.*, March, 1881.

Excessive Acidity of Urine a Cause of Alkalinity.—It may result in this way: If the urine when secreted by the kidneys is intensely acid, it may irritate the walls of the bladder, which quickly pour out a large amount of mucus. This substance acts as a ferment, decomposing the urine, and forming ammonium carbonate, which renders the urine alkaline, and in turn gives rise to cystitis.—Dr. J. A. McCorkle, in *Trans. Med. Soc., County of Kings*, March, 1881.

Danger of Domestic Remedies in the Ear.—Dr. Henry Olin, in a contribution to the *Chicago Medical Times*, February, 1881, protests against the injudicious use of such remedies as glycerine, olive oil, laudanum, goose oil, fat pork, boiled onion, poultices of different kinds, steaming, blistering, and, last and least dangerous, blowing tobacco smoke in the ear. In a catarrhal inflammation, for example, such applications softens the tympanic membrane, encourages the suppurative process, and soon results in the matters being discharged through, leaving the ear without a protecting membrane to the delicate cavity of the tympanum. The treatment of such cases should be of a character that destruction of the part would not be hastened by the remedy, and if pus does form to such an extent that it does not escape through the Eustachian tube, a paracentesis should be performed at an early date.

Absence of Vagina and Womb.—Dr. R. L. Payne, of Lexington, N. C., reports in the *North Carolina Medical Journal*, February, 1881, the cases of two young, healthy women, æt. respectively nineteen and seventeen years, in whom, after careful examinations, he failed to find anything resembling vagina, uterus or ovaries. He thinks the ovaries were absent because in neither of the women had there been any evidences of a disposition to menstruation, as pains in the abdomen, loins and limbs, or fullness and weight in the pelvis, general malaise, nervousness, etc.; and in neither had there ever been vicarious hæmorrhages—nothing to note the retention of menstrual fluid. Another reason why I suppose the ovaries were absent, was the fact that both of them denied having ever had any animal desire. I know perfectly well that the idea does not accord with the opinions held by some, and I know equally well that Drs. Goodell, Battey, and many others of our greater lights, hold to the opinion that spaying does not unsex a woman; nevertheless, with all the lights before me, I do most honestly, humbly and respectfully beg leave to differ. I believe that in those women in whom the sexual appetite persists after the removal of the ovaries, either that a portion of the stroma has been left behind, or that they bore supernumerary ovaries which have escaped the knife of the surgeon; and I believe that those women, who have been cleanly spayed, and who say that animal passion is still potent with them, simply prevaricate, because they do not desire that their husbands or any one else shall regard them as unsexed. Yes, I have heard of the

woman who was an hundred years old, who, when asked how old a woman must be before animal desire fails, replied, "You must ask some one older than I." Still, the fact that a large proportion of women do lose all desire after the menopause, has never been successfully and completely controverted. I suppose we are to believe that it nearly always occurs after the natural menopause, and very seldom follows as a result of the artificial. Women naturally shrink from acknowledging any decline of potency.

Rest After Delivery.—In answer to the position of Dr. Goodell, that parturition is a physiological process and should not be made to wear the livery of disease; that the upright position excites the uterus to contract and lessens the amount and duration of the lochia; that uterine diseases are hardly known among the nations whose women early leave their beds; that experience has shown him that convalescence is rendered far more prompt and sure, Dr. Garrigues replies, that although it is a physiological process, parturition is "One in which a transition from the normal condition to the pathological is extremely common, and that the women of our time are no more in the same physiological condition as in the infancy of mankind. He suggests that the fœtal head, by hereditary development of the brain, in consequence of civilization, may have become larger than it was in the early history of the race, and states that the head of the new-born Indian is said to measure from one-eighth to three-eighths of an inch less in its various diameters, while the measurements of the pelvis of the Indian woman is about the same as in the white race. On the other hand, the tissues of the civilized woman have no doubt become weaker and are more easily torn. He claims that it is not proven that the upright position favors uterine contraction; and even if granted, it remains true that displacements of the uterus are likely to be produced by the weight of the organ while it is enlarged and flaccid, and many careful observers have denied the statement that the lochial flow is diminished by the upright position. He attributes Dr. Goodell's admirable results, as reported, to the other measures which he adopts, to the good food, relief from pain, prevention of infection, &c., and questions whether the length of time the patients remain in the Retreat after delivery, averaging sixteen days, is sufficient to determine the final result of this mode of treatment. He quotes Dr. J. T. Johnson, of Washington, D. C., as authority for denying that the experience of the colored women of the

South shows the advantage of a speedy getting up after delivery. Dr Johnson says, that at the Freedman's Hospital Dispensary, patients suffering from the effects of subinvolution, uterine displacements and hæmorrhage, presented themselves more frequently than from any other ailments.—Editorial in *St. Louis Courier of Medicine*, Nov., 1880.

Viburnum Prunifolium.—In the *Boston Medical and Surgical Journal*, February, 1881, we find a useful and readable article on the use of virburnum in uterine diseases, by Dr. E. C. Mann, of New York. His cases were inmates of the Sunnyside Medical Retreat. He remarks: "I have had several very violent cases of congestive and neuralgic forms of dysmenorrhœa—in one case the dysmenorrhœa being accompanied by epileptiform convulsions of a very severe type, and in each case I have seen almost magical relief following the use of the fluid extract of viburnum prunifolium. Previous to my using the viburnum prunifolium, I had been accustomed to rely on valerianate of zinc and fluid extract of gelsemium with the constant current of electricity; but since my first experience with this agent, I have used nothing else. Although I have not had occasion to use it in cases of threatened abortion, I should deem it worthy of use from its action on the ganglionic nerves of the uterus. I have failed to perceive any action on the general system, the whole force of the medicine appearing to be directed to the uterus and its system of nerves. When the pulse has been high from nervous excitement, and the temperature centres in the brain have been temporarily paralyzed, allowing sudden rise in the temperature, from nervous excitement, both pulse and temperature have fallen to the normal as the uterine pain has been relieved. It must be remembered also, that my cases have been aggravated ones—many of them having been sent to Sunnyside on the verge of insanity. My conclusions are, that in viburnum prunifolium we have a uterine sedative more powerful than any other in controlling dysmenorrhœa and uterine contractions, and that it probably acts by passing from the blood to the nerve centres, and is special in its effect upon the ganglionic nerves of the uterus.

Calcareous Degeneration of the Placenta.—Dr. Albert Cooper, of Columbus, Ohio, reports in the *Ohio Medical Journal*, January, 1881, an interesting case of calcareous placental degeneration occurring in his practice. The first confinement of Mrs. S. was tedious, and required the use of the forceps.

After waiting two hours for the expulsion of the placenta, he introduced his hand into the uterus, and found a part of the placenta firmly adherent to the uterus. After its removal, he found a spot upon the uterine surface about two inches in diameter, where the connective tissue appeared filled with a gritty, calcareous deposit. After the lady's next confinement, after waiting one hour for the placenta, during which time the patient had several hard pain without any effect, and after the failure of Crede's method, he introduced his hand and found a large surface of the placenta adherent, and with the same sand-like feel as before. On examination, after its removal, there were spots of calcareous degeneration, from one to two inches in diameter, here and there, over its uterine surface, constituting perhaps one-half of the entire surface.

Puerperal Eclampsia.—Dr. William H. Wathen, of Louisville, Ky., objects to the classification of this disease into the epileptic, apoplectic, hysterical, hydræmic, anæmic and uræmic, as it tends to confusion and gives no tangible idea of the nature and character of the disease. Hysterical and apoplectic convulsions during labor, or pregnancy, are just the same as we have at any other time, and should not be styled puerperal apoplectic, nor puerperal hysterical convulsion. Nor should we say hydræmic, uræmic, or anæmic, as we do not know if the convulsions result from either of these conditions. There is no satisfactory proof that urea is converted into the carbonate of ammonia, and it is now generally conceded that such a transformation is, to say the least, doubtful. The theory which holds that these convulsions are the result of cerebral or cerebro spinal anæmia is about as plausible as any. It is held that this cerebral or cerebro-spinal anæmia results from the hydræmic condition of the blood; that there is an excessive amount of the watery elements in the blood, and that, with this increased vascularity, there is hypertrophy of the heart during pregnancy. These, combined, cause such pressure upon the capillaries of the brain as to result in effusion of serum into the tissues, secondarily causing this anæmic condition of the brain.

The diversity of opinion, as regards its cause, entails a corresponding diversity as regards its treatment. Venesection is of unquestionable benefit at the beginning of, and during an attack, when the symptoms are violent, and the face and brain much congested. This is demonstrated by clinical experience. By it we frequently find the attack cut

short. Granting that the blood is in a hydræmic condition, still there is an excessive vascular tension, and venesection does good by preventing serious lesion of the brain and kidneys, and by relieving vascular tension. If, however, it is practised indiscriminately, we do harm, as we must move a certain amount of the desirable as well as a undesirable number of the constituents of the blood. And in spite of the fact that we relieve the tension, we leave the system in a less favorable condition for recovery than it was before; so bleeding should not be practised to excess. Chloroform, chloral, morphia and bromide of potassium should be used to prevent a return of the convulsions. Accepting the theory of the hydræmic condition of the blood, we would naturally expect to have happy results from those remedies that produce profuse diaphoresis. But we find the results have not been in accordance with this theory, and we have, by the use of pilocarpine, administered hypodermieally, unfavorable reports—indeed, quite a number of fatal results; and it has been determined that under the use of pylicorpine, where salivation has been produced, the success has been less encouraging than where other means of treatment have been resorted to.—Dr. A. H. Kelch, in *Med. and Surg. Rep.*, November, 1880.

Book Notices, &c.

Imperfect Hearing and the Hygiene of the Ear. By LAURENCE TURNBULL, M. D., Ph. G., Aural Surgeon to Jefferson Medical College Hospital, etc. Third Edition, with Illustrations. Philadelphia: J. B. Lippincott & Co. 1881. 8vo. Pp. 147. Price $2.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

The distinguished author of the above named book has contributed so much of valuable medical literature to the profession, we felt confident in sitting ourselves down to the task of examining the work before us, that we would glean some useful information, and we have not been disappointed. The chapter (VII) on teaching deaf mutes is one that is of great value to parents as well as to doctors. This work is not a systematic one on diseases of the ear, but treats mostly of the plans of treating those who are deaf by chronic disease. Hence all the recent inventions to aid hearing, such as the audiphone, dentaphone, etc., are described; and many

useful suggestions regarding the hygiene of hearing are given. This book is of great value to the non-professional deaf people, especially in communities where doctors scarcely know the difference between the labyrinth and the *iter a tertio ad quartum ventriculum*.

Rocky Mountain Health Reports. By CHAS. DENISON, A. M., M. D., Author of "Reports on Climate and Consumption," etc. Second Edition. Boston: Houghton, Miflin & Co. 1881. Paper. 12mo. Pp. 192. (From Publishers.)

We had occasion some year or so ago to commend the First Edition of this work. We have now, on account of the revisions, additions and improvements, greater pleasure in calling attention of the profession to this Second Edition. While the Doctor brings out the great value of the section of country in which he resides (Colorado) and West of his home, he still recognizes the value of the climate and healthfulness of other sections. He does not enter into the cry, so common in this section a few years ago for every patient we found incurable, "Go West,"—really in the expectation that the party would die while in the West. But he enters into a thoroughly analytical of *high* altitudes in relation to the arrest of chronic pulmonary disease; and comes to the general conclusion that rarified air, dry and moderately cold, such as is found in some of the Western Territories and States, is the best place for those predisposed to consumption to live. The book contains many experiences which are as interesting in their detail as they are valuable for practical purposes.

Compendium of Microscopical Technology. By CARL SEILER, Late Director of the Microscopical and Biological Section of the Academy of Natural Sciences, Philadelphia, etc. Philadelphia: D. G. Brinton. 1881. 12mo. Pp. 130. (From Publishers.)

This little manual is intended as a guide to physicians and students in the use of the microscope, and in the preparation of histological and pathological specimens. The author, having often been misled by the many descriptions of a large number of methods recommended (but which had evidently not been tried by the various writers on the subject) for the preparation of tissues for microscopical examination, has, in the present volume, strictly confined himself to giving clear and short descriptions of processes which he is in the habit of using himself, and which he has found to give uniformly satisfactory results. The book is well supplied with illustra-

tions, formulæ, tables, etc.; and the Appendix contains a concise classification table of the more common tumors and neoplasms. This table gives (1) the macroscopic and (2) microscopic appearances; (3) the clinical features, and (4) the definitions.

Handbook of Chemical Physiology and Pathology, with Lectures on Normal and Abnormal Urine. By VICTOR C. VAUGHAN, M. D., Ph. D., Lecturer on Medical Chemistry in University of Michigan, etc. Third Edition, Revised and Enlarged. Ann Arbor: Ann Arbor Printing and Publishing Company. 1880. 8vo. Pp. 351–52. (From Publishers.)

This "Handbook" is one of the most practical works for ordinary doctors who have forgotten the technicalities of chemistry that we have had the pleasure of examining for some time. It is as interesting to a practitioner as it must be to one who pays attention to chemistry as a specialty. This is the *chemistry book* for the *Doctor*, because it gives so much of practical detail that we know not where else is to be found in one volume. The title, as above given, indicates quite well the scope of the work. In addition to the text, drawings of apparatus and methods of procedure for medical chemical analyses are appended.

Hygienic and Sanative Measures for Chronic Catarrhal Inflammation of the Nose, Throat and Ear. Part I. By THOMAS F. RUMBOLD, M. D.. St. Louis: Geo. O. Rumbold & Co. 1880. 12mo., pp. 174. (From Publishers)

Dr. Rumbold has been a close observer, and has in his small volume presented papers of great practical value to the profession, and at the same time a volume that may, with great advantage, be placed in the hands of every patient who is the subject of catarrh of the respiratory passages. We have rarely read a work that at the same time so well meets the need of the profession and the laity. We look with interest for further pages from Dr. Rumbold.

We were very much interested in the Doctor's remarks on tobacco. We summarize his conclusions on the subject in the following propositions:

1. Tobacco produces an exhilarating effect on those individuals only who have acquired the tobacco habit.

2. The pleasurable effect arising from the use of tobacco is not experienced except during the time that it is depressing the system.

3. It is quite questionable whether the exhilaration following the use of tobacco causes the consumer of it to enjoy life to a greater degree than those who do not use it.

4. The congestion occasioned by the effect of tobacco on the mucous membrane of the superior portion of the respiratory tract, resembles, in many respects, the congestion resulting from the effect of a cold, and, like the effects of a cold, some of its effects are transitory and some are permanent.

5. The local effect of tobacco on the mucous membrane of the nose, throat and ears, is as predisposing to catarrhal disease, as is inefficient and insufficient clothing in the case of females.

6. The local effect of tobacco on the mucous membrane of the superior portion of the respiratory tract, causes a more permanent relaxation and congestion than any known agent.

7. As tobacco depresses the system while it is producing its pleasurable sensation, and as it prepares the mucous membrane (by causing a more permanent relaxation and congestion than any known agent) to take on catarrhal inflammation from even slight exposure to colds, it should require no further information to show that its use ought to be discontinued by every catarrhal patient.

The only question remaining to be answered is, Shall its use be discontined at once, or shall the victim "taper off" in his endeavor to become master of himself?

Elementary Treatise on Practical Chemistry and Qualitative Inorganic Analyses. By FRANK CLOWES, D. Sc., Lond., Fellow of Chemical Societies of London and Berlin, etc. With illustrations. From Third English Edition. Philadelphia: Henry C. Lea's Son & Co. 1881. 12mo., pp. 372. (For sale by Messrs. West, Johnston & Co., Richmond.)

The chief object of the author of the present work was to furnish one which was sufficiently elementary in the description of apparatuses, chemicals, modes of experimentation, etc., so as to "reduce to a minimum the amount of assistance required from a teacher." It is a generally recognized fact that one of the most serious hindrances to the utility of many of the smaller text books is the too great conciseness of the language employed, which renders it unintelligible to the primary student unless supplemented by copious verbal explanations from the teacher. The *Elementary Treatise* of Dr. Clowes, examined with reference to the above claims, is found to be a great improvement on other elementary works. A student who carefully reads this text will scarcely

need the assistance of a tutor in following out any of the experiments described.

Manual of Minor Surgery and Bandaging. By CHRISTOPHER HEATH, F. R. C. S., Surgeon to University College Hospital, and Holme Professor of Clinical Surgery in University College, etc. Sixth Edition. Revised and enlarged, with 115 illustrations. Philadelphia: Lindsay & Blakistone. 1880. 12mo., pp. 342. Price $2. (For sale by Messrs. West, Johnston & Co., Richmond.)

This "Manual" has become so universally popular in this country among the profession, that it is scarcely necessary to say more than that a *thoroughly revised and enlarged* edition has lately been issued by the American Publishers, which has been prepared by the author himself. This book is useful to every practitioner, as well as student of medicine and house-physician in hospitals, or "assistants" in the practice of the leading surgeons in our cities. We know of no book that so well presents the odds and ends of surgical practice. No doctor will go astray in adding this book to his ready reference books.

Diagnosis and Treatment of Ear Diseases. By ALBERT H. BUCK, M. D., Aural Surgeon to New York Eye and Ear Infirmary, etc. New York: Wm. Wood & Co. 1880. 8vo. Pp. 441. (From Publishers.)

This is a valuable book to specialists as well as general practitioners. It is based chiefly on the experience of the author, who has kept notes of his cases. This book is one of the almost priceless series of "Wood's Library of Standard Medical Authors. The publishers are highly to be commended for selecting live American writers for authors, since American authors always give credit to European authorities, while European writers rarely look over an American book or journal. The time is soon at hand, however, when the English, French, German and other European practitioners will turn to American medical literature for *practical* information in medicine.

How We Fed the Baby, TO MAKE HER HEALTHY AND HAPPY: WITH HEALTH HINTS. By C. E. PAGE, M. D. 12mo. Pp. 144. Paper, 50 cents; cloth, 75 cents. New York: Fowler & Wells, 753 Broadway. (From Publishers.)

This treatise heralds a new departure in the alimentation of infants, and gives every evidence of conscientious and intelligent study on the part of an author of broad experience,

familiar with all the details of the nursery. The central feature of the work represents the infancy of the author's own daughter, whose first months were freed from the common inconveniences, popularly supposed to be unavoidably connected with this period of life. Our author makes plain how infantile diseases may, in great measure, be avoided, and infant life made as joyous as that of the most fortunate among the lower animals. This manual will be welcomed by many mothers in all parts of the land. The hope of the children must be found in an enlightened motherhood, and every effort in this direction should be welcomed. *Physicians* will know how to prize the work of a specialist in this particular branch of medicine.

Medical Heresies: Historically Considered. By GOWZALVO C. SMYTHE, A. M., M. D., Professor Practice of Medicine, Central College of Physicians and Surgeons, Indianapolis, etc. Philadelphia: Presley Blakiston. 1880, 12 mo. Pp. 228.

This book contains a series of critical essays on the origin and evolution of sectarian medicine, embracing a special sketch and review of Homœopathy—past and present. It gives a succinct and most readable account of the rise, progress and fall of the various schools, sects or systems, from their origin down to the present day. It also furnishes the regular profession with some much needed information in regard to homœopathy. It is singular how ignorant many of the regular profession are of the tenets and practices of homœopaths; and yet expose themselves to criticism by the ridicule they make of homœopathy. True, the major part of homœopathy is a proper subject for ridicule—were it not that the doctrines promulgated by that special school involved the health and life of people. But fallacies of any description are not to be met in this day by sarcasm or jokes. There are too many persons in earnest—seeking the truth, and desiring no information that is not the truth. This little book gives exact quotations from the writings of homœopathic *authors;* and by these quotations, the *heresies* of homœopathy are shown. Every regular practitioner should post himself regarding the teachings of this limited school of practice, in order that he may know of what he is talking when he comes to engage in conversation over the ridiculousness of this specially ridiculous limited school of practice. Such a book as the one before us should be made one for popular circulation, in order that the public generally, who generally hear only one side of the subject presented,

might inform themselves, and thus be the better judges for themselves. Fortunately, at present, the South is not yet infested by the special class of ignoramuses, known as homœopaths—there not being over twenty in the entire State of Virginia.

How to Use Forceps. By HENRY G. LANDIS, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children, Starling Medical College, etc. Illustrated. New York: E. B. Treat, 1880. 12 mo. Pp. 168. (From Publishers.)

This nicely issued book is one of great importance to the profession. While it is not "classical" in the sense of giving authorities for recommendations, it is nevertheless very practical, and is the recorded experience of one who has paid a great deal of study to the anatomy and physiology of the puerperal organs and processes, and to the means of delivery. The illustrations consist rather of diagrams than of drawings; and there is no index to the book, which, if added, would have made it the more useful for quick reference, as practitioners generally wish to make a hasty reference to such a book in an emergency. If one, however, will read the text carefully and thoughtfully, he will gain much useful information that will be of value to him at the bedside.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice; but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Instructions Relative to the Physical Examination of Applicants for Admission to and Promotion in the Revenue-Marine Service, and for Enlisted Men of the Service. 8vo. Pp. 3. Treasury Department. Document 82.

Suggestions as to the Therapeutic Value of Rest in the Treatment of Laryngeal Diseases. By BEVERLY ROBINSON, M. D., New York. 8vo. Pp. 13. (From *Arch. Laryncology*, September, 1880.)

Surgical Treatment of Naso-Pharyngeal Catarrh. By D. H. GOODWILLIE, M. D., DD. S., New York. 8vo. Pp. 8. (From *Medical Gazette*, July 31, 1880.)

Surgical Treatment of Intestinal Obstruction. By W. T. BRIGGS, M. D., Nashville, Tenn. 8vo. Pp. 25. (From *Nashville Jour. Med. & Surg.*, 1880.)

Address Before the New Orleans Auxiliary Sanitary Association. By JOHN RAUCH, M. D., of Chicago, Ill. Pp. 13.

Cleanliness, Health and Wealth—Domestic Sanitation, one of

its most Important Elements. Reported by Geo. K. Pratt, M. D., New Orleans, La. Pp. 20.

Pathology of the Cicatrices of Pregnancy. By Samuel C. Busey, M. D., Washington, D. C. Pp. 22. (From *Gynæcological Transactions*, Vol. 4.)

Salicylate of Soda in the Treatment of Iritis. By Julian J. Chisholm, M. D., Baltimore, Md. Pp. 4. (From *Archives of Ophthalmology*, June, 1880.)

Information Relating to the Pennsylvania Training School for Feeble Minded Children. By Isaac M. Kerlin, M. D., Superintendent, West Chester, Pa. Pp. 35.

Restoratives. By J. R. Uhler, M. D., Baltimore, Md. 8vo. Pp. 14. (From *Trans. Amer. Med. Assn.*, 1880.)

Strong Galvanic Current in the Treatment of Cancer—the Results of Thirty-Two Cases. By V. P. Gibney, A. M., M. D. 8vo. Pp. 11. (From *Trans. Amer. Med. Ass'n*, 1880.)

Perityphlitis in Children, Illustrating Points in the Differential Diagnosis of Hip Disease—a Report of Six Cases. By same. 8vo. Pp. 11. (From *Amer. Jour. Med. Sci.*, Jan., 1881.)

Posture in the Treatment of Intestinal Colic and Ileus, with a Consideration of the Pathology of "Spasmodic Colic." By Frank H. Hamilton, M. D., New York, N. Y. 8vo. Pp. 8.

Relations of the Medical Profession to the Trade Interests of the Materia Medica, and a Note on Pepsin. By Edward R. Squibb, M. D., Brooklyn, N. Y. 8vo. Pp. 18. (From *Proceed. Med. Soc. County of Kings*, May, 1880.)

Remarks on Syphilis. By Walter Coles, M. D., St. Louis, Mo. 8vo. Pp. 16. (From *St. Louis Med. & Surg. Jour.*, Jan., 1881.)

Suggestions for the Restriction and Prevention of Diphtheria. 8vo. Pp. 7. Issued by the State Board of Health of Wisconsin. Dr. J. T. Reeve, Appleton, Wis.

Editorial.

The American Medical Association will convene in Richmond at 11 A. M., Tuesday, May 3d, 1881, in Mozart Hall, on Eighth street, between Grace and Franklin streets. The following is a list of the members of the General Local Committee of Arrangements, sub-committees, halls of meetings of the several sections, etc.:

General Committee of Arrangements—Drs. F. D. Cunningham, Chairman; J. Grattan Cabell, Assistant Secretary of the Association; Hunter McGuire, J. S. Dorsey Cullen, Jas. B. McCaw, Landon B. Edwards, Joseph A. White, George Ben. Johnston, George Ross, Christopher Tompkins, C. W. P. Brock, Hugh M. Taylor, and Z. B. Herndon.

Committee on Exhibitions—Messrs. T. Roberts Baker, Chairman; Norman Randolph, Polk Miller, Mont. West.

Committee on Invitations—Drs. McCaw, Johnston and Cabell.

Committee on Printing—Drs. Edwards, Brock and Tompkins.

Committee on Theatre and Decorations—Drs. Taylor, White and Ross.

Committee on Halls and Registration—Drs. Cunningham, Brock, Cullen, Edwards and Cabell.

Committee on Finance—Drs. Ross, Treasurer; McCaw and McGuire.

The General Committee will act as the Committee on Receptions and Accommodations.

Titles, Officers and Location of Sections.—1. *Practice of Medicine, Materia Medica and Physiology*—Chairman, Dr. William Pepper, of Pennsylvania; Secretary, Dr. T. A. Ashby, of Maryland. Will meet in Mozart Hall. Local Committee, Drs. McCaw and John G. Skelton.

2. *Obstetrics and Diseases of Women*—Chairman, Dr. Jas. R. Chadwick, of Massachusetts; Secretary, Dr. Joseph Taber Johnson, of District of Columbia. Will meet at Wilkinson Hall, on Ninth street, between Franklin and Main streets, Room No. 1. Local Committee, Drs. Brock and R. T. Coleman.

3. *Surgery and Anatomy*—Chairman, Dr. Hunter McGuire, of Virginia; Secretary, Dr. Duncan Eve, of Tennessee. Will meet in Young Mens' Christian Association Hall, on Main street, between Eighth and Ninth streets. Local Committee, Drs. McGuire and H. M. Taylor.

4. *State Medicine*—Chairman, Dr. J. T. Reeve, of Wisconsin; Secretary, Dr. R. G. Jennings, of Arkansas. Will meet in Wilkinson Hall, Room No. 4. Local Committee, Drs Cabell and Tompkins.

5. *Ophthalmology, Otology and Laryngology*—Chairman, Dr. D. S. Reynolds, of Kentucky; Secretary, Dr. Swan M. Burnett, of District of Columbia. Will meet in Wilkinson Hall, Room No. 2. Local Committee, Drs. J. A. White and P. H. Taylor.

6. *Diseases of Children*—Chairman, Dr. A. Jacobi, of New York; Secretary, Dr. W. H. Bradford, of Massachusetts. Will meet in Wilkinson Hall, Room No. 3. Local Committee, Drs. Herndon and J. S. Wellford.

For the information of those interested, the following notices are published:

The American Medical College Association—Prof. S. D. Gross, M. D., President, Philadelphia, Penn.; Prof. L. Connor, M. D., Secretary, Detroit, Mich. Will meet in Wilkinson Hall, Monday, May 2d.

The American Surgical Society—Prof. S. D. Gross, President; Dr. Weist, Secretary. Will meet in the Hall of the House of Delegates on Thursday May 5th.

The Chesapeake and Ohio Railroad will have round-trip tickets on sale on April 28th, 29th and 30th, at Cincinnati, to Richmond and return, for $16.

The York River Railroad offer round-trip tickets from Light-street wharf, Baltimore, to Richmond and return, for $5.

The Old Dominion Steamship Company offer "scaled" rates at their office in New York to Richmond and return.

An Enemy to Science.—We are in receipt of a communication from Dr. George B. H. Swayze, in behalf of the Medico Legal Society of Philadelphia, Penn., enclosing a copy of the intro-professional argument between the medical profession and pharmacists of that city. This paper calls our attention to an abuse which, from its insidious character, has assumed such magnitude that the medical profession of this country should give it more than passing consideration. We refer to the system of trade-marks and copy-rights, or trade-mark pharmaceuticals, which are but one form of patent medicines, advertised to the medical profession and the general public. The system may be illustrated as follows: A manufacturing pharmacist secures the formula for a combination of pepsin, pancreatin, beef-juice, etc., gives it a fanciful name, copyrights both name and formula, secures the endorsement of several leading physicians, places it upon the market enclosed in a wrapper, not differing in the least from those enclosing the most objectionable patent medicine extant (being protected from legitimate competition by the copyright), and holds it at a price double that which any reputable pharmacist would prepare it for. This system calls for our earnest condemnation, as debasing both the medical profession and the practical pharmacist into a medium for

furthering the interests of a patent-medicine business condemned by the code of ethics adopted by all medical and pharmaceutical associations, and is to the last degree prejudicial to the interests of science.

West Virginia State Board of Health.—The medical profession is fairly represented in the Legislature of West Virginia. After a struggle, annually renewed for ten years, the Legislature has passed a bill for the establishment of a State Board of Health. This success is an index of the progressive spirit of our neighbors, upon which we heartily congratulate the people and the profession of West Virginia. No one has more intelligently and more diligently labored to accomplish this important legislation than our friend, Dr. J. T. Reeve, of Wheeling.

The bill, passed by the Legislature establishing the Board of Health, embraces the usual provisions in such cases, going further, however, than the act of the Virginia Legislature in allowing the Secretary a salary, and the other members of the Board their travelling and necessary expenses when employed in the discharge of their duties. The act also wisely provides that the State Board of Health shall be an Examining Board, before whom all parties desiring to practice medicine in the State shall appear, and be examined prior to entering upon the practice of their profession.

Dr. William E. Taylor.—We regret to learn that Dr. Wm. E. Taylor has been forced, on account of an injury received whilst in the discharge of his duties, to resign his position on the Medical Staff of the United States Navy. The *Western Lancet*, March, 1881, has the following:

"Dr. William E. Taylor has lately been appointed to the Chair of the Principles and Practice of Surgery in the Medical Department of the University. Dr. Taylor is a native of Virginia, where he received his education and entered the navy as Assistant Surgeon in 1859; was promoted to the grade of Surgeon, and then to that of Medical Inspector. On account of an injury received in the performance of duty while at Maré Island, which incapacitated him from active service afloat, he was retired in January, 1881. He has our hearty wishes for success in his new position.

Transactions of the Iowa State Medical Society.—Dr. J. F. Kennedy, Secretary, supplies us with the proceedings of the 27th and 28th annual sessions of the Iowa Medical Society.

The minutes of the two sessions are embraced in one volume. The transactions are gotten up in excellent style, and the papers reported are of highest value. Accompanying the necrological record are, what we take to be, good portraits of the deceased members. This is well. Among other articles reported in the transactions, which we have read with special pleasure, we mention two contributions on the subject of ovariotomy. We note, also, valuable papers by Dr. Smith on the "Exsection of a Part of Femur," and by Dr. Fitch on a "Case of Transfusion."

The Comparative Mortality of the Whites and Blacks in the United States has thus been calculated for the New York *Sun*. The term "blacks," it is presumed, embraces all shades of the colored race. The calculation is evidently based upon the annual mortality per 1000 of population in the several sections:

	Whites.	*Blacks*
New England (per 1,000)	20	24
Middle States (per 1,000)	22	58
Northwestern States (per 1,000)	10	48
Southern States (per 1,000)	19	34
Total	71	164

The University of Louisville.—On February 25th, the Medical Department of the University of Louisville concluded its exercises for the session 1880–1881—graduating over one hundred physicians. The graduates represented sixteen States of the Union, and a foreign country. We have rarely been more pleased with an address delivered before a graduating class than that of Dr. E. R. Palmer. If we had space, every word of his address would here be reproduced. Dr. Palmer has the rare faculty of making popular subjects scientific and professional.

Louisville Medical College.—The final exercises of the Louisville Medical College for the session just ended were celebrated on February 25, 1881. In the graduating class seventeen States were represented. This representative Medical College of the Middle West keeps fully apace with the advances in medical science. Kentucky should foster its two great Medical Schools—the Louisville Medical College and the University of Louisville.

Small Pox in Richmond.—Very exaggerated rumors as to the number of cases of this disease in Richmond have been afloat. There have not been more than six or seven cases, all told; and no one now has the slightest apprehension as to the spread of the disease. The city authorities very promptly provided for the vaccination of every citizen. All the cases that occurred in this city, it seems, can be traced as having had some connection with the Richmond Paper Mills, or else had been associated with those who worked in the Mills. The occurrence of the disease here, it appears, was due to handling some infected rags that were bought by the Paper Mills from some Northern city.

Dr. J. Marion Sims.—The latest intelligence from this distinguished member of the medical profession, announces the gradual improvement of his health. He is now at St. Augustine, Fla., convalescent from his pneumonia, able to walk about his room, and hopes at an early day to be entirely restored to health.

The Louisville Medical News, while losing by the death of the former Editor, Dr. Cowling, is to be congratulated in having been placed in the editorial charge of Dr. J. W. Holland. It will continue to exert its useful influence throughout the profession.

Medical Journals of the World.—Of these, France and her colonies possess 147, of which 95 are published in Paris alone. Germany has 129; Austria, 54; Great Brittan, 69; Italy, 51; Belgium, 28; Spain, 26; Russia, 26; Holland, 16; Switzerland, 10; Norway and Sweden 9; Denmark, 5; Portugal, 4; Turkey, 2; Greece, 1. In America, 183 journals are said to be published, but this must be an under-estimate. Asia is supplied with 15, while Oceanica boasts 2, which should have a wide circulation. The entire number of medical journals published the world over is 785, most of which live by preying upon each other directly, or by bolting the half-digested items obtained at third hand from the journal in which they were originally extracted.—*Philadelphia Medical Times*, Jan. 29.

Deaths from Trichinosis seem to be increasing in frequency. The latest case is reported from Hoboken—that of a young German woman who had been eating raw ham and sausages. A microscopic examination of the muscles showed the pres-

ence of the trichinæ in great numbers. The husband of the victim was also attacked with the disease, but recovered. The physician who was in attendance states that during the last twenty-six years he has seen sixteen cases of trichinosis in Hoboken, but the present is the only one that has terminated fatally.—*Bost. Med and Surg. Jour.*, April 14, 1881.

The Graduates of the Medical Department of University of Louisiana, 1881, numbered forty-three.

Obituary Record.

Dr. Richard O. Cowling, Editor of the *Louisville Medical News*, and Professor of Surgery in the Medical Department of the University of Louisville, died of endocarditis, April 22nd, 1881, in the 43rd year of his life. He was one of the best of American medical editors; as a Professor and as a practitioner of medicine, he occupied a high rank; and as a true man, he enjoyed the confidence of all who knew him.

Dr. Wm. A. B. Norcom, of N. C., we are informed by the *North Carolina Medical Journal*, died in March, 1881. Dr. Norcom has a wide circle of friends scattered throughout the State, to whom this information will give grief. The *N. C. Journal* simply says the news of the Doctor's death was received too late to prepare a suitable notice, which is promised to appear in the April No., 1881, of that journal.

Dr. George A. Otis. Surgeon U. S. Army, died on February 23rd, of apoplexy. He was born in Boston, in 1830. After graduating at Princeton, he received the degree of M. D. from the University of Pennsylvania in 1850. From 1853 to 1859 he practised medicine in Richmond, Va., and assisted in editing the *Virginia Medical and Surgical Journal.* During the war he served as surgeon to the 27th Massachusetts volunteers. In 1866 he was appointed Assistant Surgeon U. S. Army. He was well known to the profession in connection with the Medical and Surgical History of the War of the Rebellion, which he assisted in preparing.—*Md. Med. Jour.*, April, 1881.

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Original Communications.

ART. I.—**Fibroid Tumors of the Uterus.** By JOSEPH H. WARREN, M. D., Boston, Mass.; Author of "Hernia;" Foreign Delegate from American Medical Association; Member British Medical Association, etc.

We come now to that very interesting period in this series of papers on the medical and surgical diseases of females, in which we shall consider *tumors*, which seem greatly prone to affect the generative organs of the female. I shall, in this paper, dwell more particularly upon the benign or non-malignant forms, such as *myxomata* or *mucous tumors*, *polypi*, *myomata* or *muscular tumors*, *fibro-polypi*, *fibro-interstitial* or *intra-mural fibroids*, *intra-uterine* or *sub-mucous fibroids*, *sub-peritoneal* or *extra-uterine fibroids*.

We will first take a hasty glance at *papilloma cysticum* or *mucous tumor*. The simple mucous polypus that now engages our attention, consists merely of an extension of the mucous membrane, hanging by a small pedicle and slightly distended with lymph. It is seen protruding through the external os, or else is easily brought into view by a slight dilatation of the cervix uteri. The constitutional disturbances are so slight that the tumor may exist for a long time without the

knowledge of the patient. It gives rise to slight attacks of hemorrhage, and when not developed through the internal os, it often produces menorrhagia.

It has been supposed by some that when these polypi were covered with an epithelial growth upon the connective tissue, they might, by extending downward, develop into a cancer. This is sometimes called a compound type of new tissue formation. But there is great doubt whether this ever takes place; so that the affection may be classed as a simple type of mucous tumor. I have seen, however, this mucous polypus existing separately and protruding out over the cancerous cervix and ulcerated and eroded os; and it may be that others, having also seen these co-existing and in close proximity to each other, have therefore thought that one type developed into the other.

The treatment of this tumor is simple excision by seizing it with a pair of dressing forceps or by the instrument I figured in a previous paper in this journal (page 694, December, 1880), called the "Uterine Diagnosticator." The latter will be found very useful when the tumor has not protruded through the external os. The application of some acid or caustic will complete the operation.

What the general conception of *fibroid tumor* is to-day and what it was thirty or forty years ago is very different. We have arrived at a far better definition of their character, tendency and growth. With the older teachers and writers, all tumors were malignant and were called morbid growths of tissue, arising from a diseased condition of the blood and a lowered general vitality of the part or organ upon which they occurred. They would refer you for proof of this to the syphilitic gummata—tumors from blood poisoning and unhealthy tissue formation. The literature of tumors is enormous, and much of it is erroneous, but not altogether unamusing to the modern student who can find the time and patience to wade through the vast and accumulated mass. As every author felt in duty bound to give his own peculiar views for acceptance or rejection, it has been the free and stormy ground for centuries, since every new writer in pathology attempted to deny and rebut the teachings of others.

We have to-day, however, to be thankful in the pathological study of tumors for the teachings and labors of Virtue, Rindfleish, Stricker, Lücke, Paget, Gross, Atlee, Peaslee and Sims, together with others we might mention, who have so climbed the steep ascent of pathological science that we, as students, can take breath and attempt to follow them in their philosophical investigations in the new growth of tissue, called tumors. Still we, as individuals, are not to stop our labors of advance in this field; for, notwithstanding all the previous work that has been done, there is not yet a full and completely finished chapter or work, or one developed into an entire and satisfactory presentation of the whole subject, as many things supposed to be satisfactorily accounted for are found, in reality, not to be well supported by facts. We must, however, be very thankful for the ripe and rich thoughts given to this study, which have yielded rich fruits in the diagnosis and classification of new formations and tumors; yet we cannot feel that sublime self-complacency which recently led a German professor to declare in his clinic that he seldom, if ever, erred or made a mistake in his diagnosis of tumors. Statements like these are on a par with the assumptions of the professor who can tell the age of tumors and yield as results about as much accuracy as his guesses do. This will be more apparent if we illustrate his manner. After telling the patient and the assembled class that he would estimate the age of the tumor, he said it was five years old; the patient then said "one year old." The time has passed when such guessing will be received in lieu of true pathological facts in our clinical study of tumors.

Leaving untouched the proper cystic tumors, we shall confine ourselves in this article to the consideration of a few of the proper "New Formations," namely, *fibroma*, *myxoma*, and *papilloma*. These have been admirably and correctly defined by one writer as "increase of bulk by the new formation of tissue, in which no physiological object is gained." This definition is in accord with the germinal laminæ theory of Thiersch and Waldeyer, which can be sustained by clinical, histological and embryological grounds, and is very convenient for study and classification, since every type remains

forever distinct and peculiar to itself; for example, myoma and fibroma of the uterus. But when we come to consider regional or topographical peculiarities, we fall short of good results, although it is true that some regions, *e. g.* the female breast, are more often affected with cancer and the lower lip with epithelioma. But location as a means of diagnosis cannot always be depended upon since, for example, not an inch of the body is exempt from fibroid tumors.

As we have, by these few hints, shown how profitable a field for study tumors offer, we will proceed at once to the consideration of *Fibroid Tumors of the Uterus.* They are of extreme frequency, occurring in all sizes, from that of a nutmeg to a bulk of many pounds. In illustration, the enormous fibroid and fibro-cystic tumor that I showed some fourteen or fifteen years ago before the Suffolk District Medical Society will be remembered by some of the fellows. This tumor was interesting, from the fact that the growth being that of a solid branching tumor out of the body of uterus on the left side into left ovarian space, it very closely resembled an ovarian tumor; and yet the autopsy revealed the fact that the space filled by the tumor rested upon a healthy ovary. It was also interesting, from the fact that being a multiple sub-peritoneal fibroid tumor, there was at the upper right horn of the body of the uterus a cystic fibroid, while all the rest were solid fibroid or muscular tumors. Under the microscope the usual spindle-shaped non-voluntary muscular fibre was found. By this, it will be seen again that we cannot always depend upon our diagnosis of tumors as heterotropic, since the left ovarian space was filled with a uterine fibroid while it should have been a cystic or a fibro-cystic tumor of the ovary, if heterotropic or a peculiar kind of tumor confined to this region, which is very liable to multiple cystic tumors.

The *polypus fibroid* is attached by one pedicle or several upon the interior of the uterus, and by its great vascularity, grows very rapidly and may extend down through the external os and out into the vagina at times. When it does not protrude through the external os, it may develop to an enormous size within the uterus and distend this organ to

the size of full term of pregnancy or even larger. Other varieties of the fibroid may be merely a slightly flattened oval tumor pressing out the walls in all directions and in divers forms. In *intra-mural and muscular fibroids*, we have the same muscular growth, the tissues extending on the outside of the uterus. The *peritoneal fibroid* and the *interstitial fibroid* are in the walls of the organ. The latter is most generally located upon the posterior aspect of the fundus uteri, and seldom grows upon the cervix or os, although as an exception to this statement, I would say that I removed, over two years ago, a long pear-shaped fibroid from the posterior lip of the uterus in a woman aged forty. The growth in this locality is apt to be the round celled, recurring fibroid or even sarcoma. Bearing this in mind, after I had removed the tumor with the écraseur, I applied the actual cautery and deeply burned into the tissue in order, by this destruction of tissue, to prevent recurreuce of the growth. The happy result justified the application as the patient has had no return of the tumor.

These fibroids grow best during the free menstrual period of a woman's life, or between the ages of twenty-five and thirty-eight. They seldom occur before the age of thirty so as to give rise to any troublesome symptoms that would call attention to the fact of their existence; but I have no doubt of their existence in early life. I have one patient at the present time, aged twenty-three, with a large interstitial fibroid, and still another aged twenty-six; and I have seen a fibroid polypus in a patient at the early age of twenty. But these cases are rare and are exceptions to the general occurrence.

To diagnose the presence of fibroid tumors of the uterus, we have but little difficulty. It is accomplished by bi-manual manipulations of the abdomen, and by pressing the finger up the vagina when, if a tumor be present, the uterus will be found harder and not so elastic as the impregnated organ. This, with the general history, increase of size of the parts and the consideration of the general irregularity and often menorrhagic condition of menstruation, together with hearing the uterine bruit and other methods, as for example,

passing the finger up the rectum, the use of the malleable silver sound or the gum elastic bougie as recommended by that original thinker, Dr. J. Marion Sims, the vivid red and smooth and almost polished appearance, the size and weight together with the retro-version, retro-flexion, ante-version or ante-flexion according as the growth is in the anterior or posterior walls of the uterus, the character of the mucous discharges, together with their odor, anatomical or regional position of the tumor, its effects upon evacuating the bladder or rectum—a remembrance of such signs and symptoms as these will generally suffice for a correct diagnosis. To judge of the malignancy or non-malignancy of the tumor, from the point at which the tumor may have attached itself to the uterus, bear in mind that malignant growths are usually attached to the os and cervix, giving rise to more or less odoriferous discharges, while non-malignant fibroids generally yield discharges of no very marked smell. If the patient be under anæsthetics it will greatly assist us in making out our diagnosis. We have to remember in all investigations that the type of growth does not change in these tumors; and this will give us a pretty correct idea of our diagnosis, for the assumption by some that these develop into cancerous growths cannot rest upon sound pathological reasoning. Some, for example, speak of fibroids changing into recurring fibroids or sarcomatous tumors, which is an idea not held by the advanced pathologist of the present day, and therefore not tenable by *experience* or *process* of *reasoning*.

The *causation* of these tumors is in very great doubt, some alleging that sterility is a cause, which we must greatly doubt, for we have the tumors in both the fruitful and sterile uterus. A more likely cause may arise from congestion, engorgement, dysmenorrhea, metritis, blows and injuries, excessive coition, and even the syphilitic poison has been supposed to have been the exciting cause. Scrofula as well has been mentioned, but much doubt may be expressed on the two latter as causes since often there is no evidence of either affection in the patient. Thus far, then, the origin of the tumors is shrouded in much mystery, although much has been done to elucidate their origin and character by Virtue,

Lücke, Paget, West, Wells and Duncan in Europe, and by Atlee, Peaslee and J. Marion Sims in America; together with others whom we might mention, who have traveled much in the path pointed out by those I have just named, and who may be called the fathers in pathological and gynæcological investigations. The field is, however, still open for a more precise study, and a better and fuller knowledge pertaining to this subject.

As regards the *prognosis* of these tumors, we can, in many cases, give a happy and favorable one, since many of the suffering patients, particularly if they be near the climacteric period, may look forth with bright anticipation in hope that the tumor, from want of nourishment by the supply of blood attending the menstrual flux being cut off, may become disintegrated and atrophied and thus allow the uterus to return much to its normal condition. Or the patient, in many instances, can be assured of the prolongation of life even with tumors enormously large. We can assure them also of the fact, that a very large number of fibroid tumors exist in a very large class of female patients, giving rise to but little trouble and in no way shortening life. We have to qualify this statement in other cases, where there is great hemorrhage and where the tumor, from its enormous size, presses upon other organs, such as the bladder, rectum and diaphragm. Here our prognosis must be guarded, and of the most discouraging nature—particularly if our patient is exsanguinous and of constipated and dyspeptic tendency.

It is for the relief of those apparently in great danger that we shall next proceed to outline a method of treatment, and I wish it might be my happy province to be able to proclaim that I had found a specific in medicine for the relief and cure of these affections. But I, as many a more worthy writer has confessed, must also confess my inability to do so at the present time, at least. Many are the varieties of medicines from the mineral, vegetable and animal kingdom that have been tried and recommended for the relief of this affection; but how wofully have we been disappointed in their application and in their results! I will content myself with mentioning a few that have been recommended, and

then describe those which, by experience, I have found to give the greatest satisfaction.

With a view to arrest the growth, nearly all the forms of mercury, the iodides and bromides, together with peculiar diets—such as animal foods, with but little fluids—have been used, but thus far with only limited and doubtful success. For the palliative mode, such as the relief of colic and hemorrhage, I have found the following to be very successful: Where the uterine colic and hemorrhage is slight, 15 to 20 drops of tincture of cannabis Indicis, with the same quantity of dilute phosphoric acid, three or four times a day, will be very useful. Where the hemorrhage has been more severe and accompanied by constipation, the following formula I have found to serve well:

℞. Magnes. sulphatis.....ʒj
Quiniæ sulphatis.....gr. xlviij
Acid. sulph. aromatici.....ʒj
Elixir simplicis.....ʒj
Aq. destillatæ.....ʒiij
M. S. Teaspoonful three or four times a day.

This formula will be particularly applicable where there is occasional hemorrhage, accompanied by a dribbling from the uterus and a serous sanguineous discharge a portion of the time. This, with injections of hot water or alum-iron, one ounce to water, one gallon, will effectually control this condition. Where there is excessive hemorrhage and apparent danger to life, our main reliance should be placed upon the fluid extract of ergot, in full doses, together with the hot douche up the vagina and rectum. When relief must be obtained at once, the evaporation of ether from the abdomen will be found efficient. This evaporation can be hastened by fanning the ether. The intense cold produced thereby causes a very rapid contraction of the uterus and of the tumorfied substance. When ether cannot be had, ice can be used externally and also up the vagina. Gallic acid in cinnamon water is another very effective remedy, and tannin and borate of soda have also been recommended.

When the patient is free from hemorrhages, excepting

perhaps semi-occasionally, we may prevent the advancing growth and allay the attending nervous excitement by the following medication, which has given me the greatest relief and encouragement: A pill composed of protoiodide of iron gr. iss, administered after the morning meal, and a pill of biniodide of mercury, gr. $\frac{1}{32}$, given after the evening meal. As there is more or less restlessness, fifteen or twenty grains of potassium bromide will generally secure good rest for the night and relieve much of the nervousness. Should the potassium be objected to on account of the acne it may produce on the face and neck, the same amount of sodium bromide, combined with a grain or two of lithium bromide, or bromide of ammonium, will produce about the same hypnotic effect. This form of medication can be continued for many months with very decided benefit. Many other agents will suggest themselves to the intelligent practitioner, such as vinca major, the periwinkle of the garden, the hypodermic injections of fluid extract of ergot into the abdomen, just below the umbilicus, plugging of the os uteri with some astringent—vegetable or mineral. Monsel's solution is often used for saturating these fillets of lint or sponge, used as plugs.

Should these means not succeed in arresting the hemorrhage, we must proceed to the most radical and decidedly severe treatment, such as, for instance, dilating the os, making incisions into the cervix; and if the tumor be a fibroid polypus, the injection of fluid extract of ergot, after our dilatation and incisions, may cause the uterus to contract and expel the growth through the os, when it may be removed with the écraseur, greatly to the relief, and often cure of our patient. Should this fibroid be of such immense growth, and yet we have fully satisfied ourselves that it has a pediculated attachment to the interior of the uterus, we can sometimes, with safety cause a sloughing and disintegration of the growth by injecting the following:

℞. Liquor ferri chloridi.
Ergot. fluid. extract.
Liquor opii acetatis.....$\overline{aa}$ ℥j
M. S. Inject by means of a long aspirating needle.

This can be injected until the tumor has been sufficiently reduced in size to be extracted. Or we may seek to destroy the life of the tumor by piercing it in several places with a hot copper wire about one-eighth of an inch in diameter. The effects should be watched and the operation repeated until we either destroy the tumor or reduce it in size sufficient to extract it.

With the *interstitial fibroid* or *sub-mucous fibroid*, where the size is enormous and the patient has become exsanguineous and exhausted from repeated hemorrhage, we may have recource in onr emergency to passing in the exploring aspirating needle, previously figured in a paper, and thus ascertain whether the tumors be cystic as well as to determine their size and shape. This can be followed by the introduction in the track of the needle of the hot copper wire, and thus lead to the destruction of more or less of this morbid tissue. This will often cause a disintegration of the tumor, followed by atrophy and death of the growth, greatly to the delight of the patient and physician. It will be found that this is quite as effective as, and far more satisfactory than electrolysis, since, owing to the great intensity of the heat and attendent shock, we do not feel so sure of the destruction of tissue as we do with the milder method of using the copper.

Where the tumor has protruded into the uterus, or where it is a deep interstitial one, the spoon saw or curette of Thomas may be brought into use; but in my opinion there is little difference between this mode of attacking these tumors and that of extirpation of the whole uterus by laparotomy, which, in no very distant day, I feel very confident, will be the accepted method of removing this terrible scourge among women with a confidence nearly equal to that which ovariotomy possesses. I am also convinced that Battey's operation of spaying will be the accepted operation for arresting the growth of all forms of fibroid tumors of the uterus; and certainly with the apparently little danger attending this operation, we can but feel a greater amount of assurance and certainty of giving our patient an exemption from their further development and growth than is possible with the meagre remedial agents now at our command.

May we not hope with joyous anticipation that the day is already dawning in gynæcological surgery when much more can be done with precision, and assurance of a greater relief to the many maladies affecting the female economy than at present is afforded us?

A few other suggestions occur to us while passing in review the various means of treating these tumors, such as incisions through the walls of the uterus as recommended by Atlee, Peaslee and some others, gouging out, as recommended by Brown, of London, and Nélaton, of Paris, frequent injection of fluid extract of ergot in the vicinity of the tumor externally through the abdominal parieties, free incision and the application of iodine. This latter has for years been a favorite mode of procedure of mine, and the following cases will illustrate its beneficial effects:

Mrs. O., married, age 26, had an immense fibroid of the posterior portion of fundus uteri. She was subject to frequent and terrible hemorrhages which greatly reduced her strength and endangered her life. Hæmostatic agents, such as I have mentioned, had been used without arrest of the hemorrhage. After a most careful examination and exploration, I decided to make numerous incisions into the tumorfied tissue, after which I applied an almost saturated solution of iodine and carbolic acid. I repeated this on several occasions; but from the first operation she never had any recurrence of the hemorrhage. The tumor was about the size of the head of a child one year old. The cervix was much dilated from the constant formation and escape of clots. Disintegration of this vast tumor took place, with a great reduction in the size of the same; and now, for three years, she has had no increase or return of the tumor. The menstrual functions are performed regularly, and she is in a perfect state of health.

Mrs. J., age 42, married, large and corpulent, applied to me about a year ago for a large fibroid. This formation was on the anterior wall of the uterus. She was exsanguineous from constant hemorrhages, and the tumor was about five years old. Upon examination, the uterine sound penetrated nearly two-thirds of its entire length. The tumor and abdomen protruded very much. This case was treated as the one above and the tumor has reduced fully two-thirds of its size, and she has had no extensive hemorrhage since the treatment began. Her menstrual periods are being regular

and without their former hemorrhages, and there seems to be a recovery of general good health. This, I think, together with other cases which I might relate, fully establish the benefits of this mode of treatment.

I wish to digress a little to speak of a *mucous fibroid as simulating pregnancy.*

Mrs. D , age 35, first noticed a cessation of her menstration in February, 1874. She began gradually to enlarge, had morning and evening nausea and vomiting, enlargement of the breasts, which at the sixth month began to secrete milk. Since she was supposing herself pregnant and was feeling as she had before in carrying children, I took her word that she was pregnant. Time passed on until the period of her confinement had, as she supposed, arrived. She was taken with some pain and a slight show of sanguineous fluid. I was called and found her pain was the usual uterine colic attending fibroid growths. She was placed in bed and ordered to lie quiet until all appearance of flowing should disappear, and the usual remedies were ordered for her relief. She still persisted in the belief that she was pregnant, while I was fully convinced, upon the slight examination I then made, that her uterus was permeated and impregnated with a fibroid.

Recalling that wisdom was the better part of valor, I did not urge my investigation too far at this time by the introduction of the probe—a point which it is always well to remember particularly in the earlier periods of pregnancy, since the introduction of the instrument, as we all know, may induce miscarriage. Time went on until full twelve months had elapsed, when she began to agree with me that her pregnancy was very peculiar, and that she had already carried her burden of impregnation three months longer than usual. She consented to a most thorough examination, and after placing her under ether, with the assistance of another good fellow, we demonstrated, at least to our satisfaction, that she was afflicted with a large recto-fibroid in the posterior portion of the uterus. This we made out after the most careful differential diagnosis.

But it would seem that what we had so clearly demonstrated to ourselves was not satisfactory to her, as she still persisted in imagining herself as being in the family way. About this time, she heard of a wonderful doctress who gave electric baths. Upon seeing the patient, this woman fully agreed with her that she was pregnant, and speedily began to administer baths and treat her for successful deliv-

ery of her impregnated uterus. Most happily she demonstrated all this to this credulous patient by removing one morning from the bath a pair of fœtal twins, one in a state of decomposition and atrophy, much like those seen pickling in the jars of our pathological museums, the other fresh but flabby, as if it had been delivered the day previous. Thus to the great joy and happiness of the patient, she imagined herself safely delivered, without any labor pains and its accompanying agony, of all her troubles. The doctress, who had large dealing with fœtal life, as many can testify who have been delivered in the early months of their pregnancy, kindly informed her patient that it would be many months before she became reduced to her normal size, and it is very apparent that she was correct in her prognosis from the enormous size of the patient at the present day.

In connection with the above case, I wish to speak of an immense fibroid attached by two pedicles and advancing as the labor proceeded, retarding greatly the delivery of the child.

Mrs. ———, a German, 38 or 40 years of age, was taken in labor four days previous to my being called in consultation. I found the attending physician had been called after two days labor—the woman having been previously attended by a midwife. There was, as he supposed, a vertex presentation. The parts were very much swollen and ecchymosed from great handling at the stage of labor in which he was called. He had repeatedly applied the forceps well upon the head, as he supposed, and each time they had slipped off. After I had made a hasty examination, I was led to the error of thinking the presentation was what the attending physician had called it. This was owing to the swollen condition of the parts and because I imagined that the frequent application of the forceps had reduced the head to a pulpy state. Upon applying them, the head being so compressible that they instantly slipped off, my attention was directed to a more careful examination. I now found, instead of a child's head, an enormous fibroid tumor, which he had all along been mistaking, and into which mistake I fell in my hasty examination. By pushing this tumor to one side, we finally succeeded in delivering a large twelve pound child by means of the blunt hook. The mother lived a few days and then died from exhaustion.

This paper would hardly be complete unless I should mention the very valuable discovery of Dr. Hewson, Sr., of

Philadelphia, who has brought to our notice the very successful treatment of fibroids by means of dry earth. From the results and the remarkable simplicity of this successful treatment, it would seem almost as miraculous, according to this author's account, as the result of the miracle performed by our Saviour in applying clay to the blind eyes. If we can by this very simple method produce a cystic degeneration of fibroids of the uterus, as he relates, we certainly have a most remarkable remedial agent readily at hand.

My own experience in the earth treatment is as yet limited. I have, however, at the present time two large fibroids which I am treating with apparent great success by this method of applying clay. One of my patients has now been two months under treatment with a result most astonishing to me, as the tumor has under this treatment been reduced fully two-thirds. My other patient, age 43, with a multiple sub-peritoneal fibroid, estimated to weigh fully twenty-five pounds, has already lost fully a third, and the treatment has been not quite one month. The successful result thus far in these two casas gives me great hopes that we shall be able to relieve very many of these hitherto unfortunate patients, for whom we have imagined that we could do very little towards relief or cure, unless we resorted to the severe treatment already detailed.

In addition to those means above named, I would suggest, in some forms of fibroids within the uterine cavity, passing a cabolized seaton through some most prominent part, and the application of an elastic rubber bandage, three or four inches wide. The effect of this constant pressure, night and day, where it can be endured, if there be no tenderness to follow the effect of the seaton, will cause, in some kinds and in suitable cases, these tumors to disappear, as it often occurs that a very little disturbance in the structural parts and interference of the blood supply and nourishment of these fibroids will cause their destruction, atrophy and the rapid disappearance of these tumors.

It is stated that a coroner's jury in Topeka, Kan., rendered the following verdict: "That Augustus Williams came to his death from having called John Ferguson a liar."

ART. II.—**Abscess of the Liver.** By WM. A. GORDON, M. D., Richmond. (Read before the Richmond Medical and Surgical Society, April 13th 1881.)

In discussing the subject of abscess of the liver, I can do nothing more than make a compilation from writers of wide observation and high professional skill.

The affection is interesting—particularly in its diagnosis and treatment. *Post-mortem* examinations have disclosed abscesses of the liver where no rational symptoms had been noticed during life indicative of their existence; and, on the other hand, cases presenting almost every symptom of the disease have revealed at the autopsies a perfectly healthy liver. Such facts prove that a close, accurate, extended study of the trouble is essential to its better comprehension. I shall give a synopsis, so to speak, of the disease, hoping that it may lead to a free discussion of the subject by the gentlemen present.

Hippocrates and Celsus described hepatic abscess. The former stated that they were opened with the actual cautery, and the latter mentioned the use of the knife. These writers seemed to have quite a clear idea of the affection, but late observers have thrown a great deal of additional light upon it.

The history and morbid appearances are interesting. Congestion is the first stage, and then reddish portions of the organ become visible. In these spots the disease begins; but authorities differ as to the exact point—some supposing that the process commences within the lobules, and others, in the cellular tissue connecting the lobules. Small, yellowish points are now seen. These coalesce; pus is formed, and the abscess enlarges. As the disease progresses, two results may take place. In cases of long standing, a membrane of areolar tissue may be formed around the abscess, and complete or partial absorption of the contents ensue; otherwise, the walls become smooth; the shreds of lymph and *debris* within the abscess are absorbed, and the suppuration ex-

tends further into the infiltrated tissue until either perforation takes places, or the patient dies from exhaustion.

Whether abscesses of any considerable size are ever absorbed is not definitely settled. Flint, Sr., thinks it doubtful. Frerichs says we must not confound "radiated cicatrices enclosing cheesy matter" with the contracted remains of an abscess, for such appearances are sometimes found in syphilis affecting the liver. This writer, however, holds that Cateloup, Cambay, C. Broussais, and other observers have reported cases which admit of no other explanation than complete absorption. Thierfelder is of the same opinion. Such a termination must be rare after suppuration has fairly begun.

The tendency is to exhaustion and death, and the prognosis is much more grave when complications are present. Dysentery especially is to be feared; while malarial fever, various disturbances of the lungs, kidney and heart add so much the more to an unfavorable prognosis. The disease seems to be equally fatal, whether the pus is confined to the liver, or whether perforation takes place. Of all hepatic abscesses, about one-half are confined to the organ. Mr. Waring, of the Madras Medical Service, reports three hundred fatal cases, of which one hundred and sixty-nine abscesses did not open. In 203 cases mentioned by Rouis, 96 were confined to the liver. Haskel gives 25 cases, in which 10 did not burst.

The principal organs into which the abscesses open are, in order of frequency, the bronchi, stomach and colon; and, as a rule, those cases are the most favorable in which the discharges occur through these organs. When the discharge is through the abdominal or thoracic walls, into the gall bladder, pelvis of the right kidney or pleural cavity, the case is less favorable; while those abscesses which are emptied into the peritoneal cavity, the pericardium, or the portal vein, almost necessarily lead to a fatal termination.

The duration of suppurative hepatitis varies between eight or ten days and sixteen months. Cases which recover are of shorter duration than those which die. The average duration in all cases is between one and five months.

As regards the geography of the disease, climate plays an important part. C. Baerunsprung records 7326 autopsies, of which 108, or 1.48, per cent. were abscesses and lesions of the liver. Bueckling found the disease in 36 out of 2463 autopsies. These statistics relate to temperate climates. On the other hand, the affection prevails as an endemic in the tropical regions of Asia and Africa, constituting, it is stated, as large a proportion as five per cent. of all illnesses.

This leads us to speak of the causes of suppurative hepatitis. A hot climate, excesses in eating and drinking, and anything which depresses the vital powers, predispose to the disease; while dysentery, inflammation of the portal vein and the intestinal canal, closure of the ductus choledichus, emboli, ulcer of the stomach, blows on the liver and on the head, long-continued pressure, and pyæmia, comprise most of the exciting causes.

The connection between abscess of the liver and dysentery has been ably discussed by Frerichs and Thierfelder, whose articles on this subject are well nigh exhaustive. It would appear that the theory of Budd, who supposes dysentery to be a frequent cause, is not tenable. There are regions where abscesses, uncomplicated with dysentery, are prevalent; and there are certain localities where dysentery at times, exists as endemics, without giving rise to suppurative hepatitis. Some writers attribute both diseases to the same cause, and yet this theory, which seems the most probable, is open to objections. The two affections exist separately in hot climates, and when abscess is present we must refer it to some other atmospheric cause than that which gives rise to dysentery.

Whether intestinal ulceration produces the disease or not, is undetermined. As Frerichs says, the affection ought to be more common; for the ulceration of tuberculosis and typhoid fever and the diarrhœa of temperate climates all offer favorable opportunities, so to speak, for its development; and yet no connection has been proven to exist between abscess and these intestinal troubles.

Some authors refer endemic hepatitis principally to a malarial origin; but this theory has been opposed by arguments that seem to be unanswerable. In Dr. J. Marion Sims' re-

port, in the *Transactions of the Medical Society of Virginia*, 1879, it is stated that all of Dr. Hammond's cases except two lived in a malarial region. The predisposing causes are important. Remove them, and the exciting causes will often be inoperative. Hirsch says that in India the highest authorities on this subject attribute abscess to the imprudence of diet indulged in by the European residents of that country. This is proven by the fact that the natives, who live on a light, vegetable regimen, are comparatively free from the trouble, while the European, who continues to eat heartily of meat and other solid foods, and who still uses alcohol in some form, is peculiarly liable to be attacked. Sachs proves that the irritation and congestion of the liver met with in Cairo is in all probability due to the causes just mentioned, and that abscess formation is the result. Thierfelder remarks: "The most comprehensive theory, and the one which corresponds most closely with the facts, is this: that in consequence of the deleterious influences above described as predisposing factors—under which are probably to be included also certain miasmata, such as malarial and dysenteric poisons—an irritation is first of all set up that assumes the form of hyperæmia, from which, the necessary causative influences being superadded, suppurative hepatitis is developed."

There are few diseases in which an early knowledge of the trouble is more important than in abscess of the liver; and yet we are not often even led to suspect such a state of affairs from the objective or subjective symptoms. Then, too, the affection is hidden by complications which divert our attention from the liver; and in some cases we may have the chief symptoms ascribed to abscess, and still the abscess may be wanting. Functional trouble of the digestive system, hyperæmia of the liver, enlargement, pain in the organ and right shoulder, would make us suspicious were the patient living under a hot Indian sun; but in a temperate climate such evidence may be worthless. When these are followed by loss of flesh, an increase in size of the liver, jaundice, fluctuation, chills, hectic and depression nervous system, it is quite probable that an abscess has formed The pain is

supposed to be due to inflammation of the capsule, and may be entirely absent. Occurring in the right shoulder, observation shows that it usually points to the right lobe. In this connection I will refer again to the case which I brought to the attention of the Society a few evenings ago. Here dysentery had preceded, and later on there was hectic, enlargement, pain, throbbing, fluctuation and partial coma; but the aspirator went into a cyst attached to the kidney and omentum and firmly attached to the aorta. The tumor seemed to be extending from the liver downwards into the abdominal cavity.

Symptoms referable to other organs are often valuable. The pain may be so great as to occasion shortness and difficulty of breathing, and when perforation is about to take place into the pleural cavity, these symptoms become more urgent. Pleuritis and pneumonia result in such a case, separately sometimes, but frequently both are present. Disturbance of the heart, and even pericarditis, is an occasional result.

As regards the fever, it may assume every type of the intermittent; but the failure of quinine to arrest it should make us fear some grave malady.

Rouis, quoted by Frerichs, reports that of his cases collected in Algeria, the symptoms were perfect in only 8 per cent. They were imperfect in 79 per cent., while the disease ran a latent course in 13 per cent.

Prof. Hammond has clearly pointed out the relation between hepatic abscess or mental depression or derangement. Dr. J. Marion Sims mentions Prof. Hammond as "the first man who has associated abscess of the liver with cerebral hyperæmia. Prof. Hammond thinks that abscess of the liver is more common than is supposed, and that hypochondria and melancholia are sometimes valuable symptoms of the affections.

The treatment is, first of all, to remove predisposing causes when an invasion of the disease seems to be threatened. Change of climate, an unstimulating diet, rest, careful regulation of the habits, and salines, will sometimes effect the desired result. Muriate of ammonia is recommended

by W. Steuart, an English army surgeon, as an abortive agent. This remedy, used so much by German physicians, is not so popular in this country. Of course, in acute inflammation, the treatment at first must be antiphlogistic. When, however, we fear the beginning of suppuration, supporting measures must be used, and everything avoided that tends to impair or weaken the vital powers. The patient should have as much nourishing food as he can easily digest, tonics, and often stimulants should be given; and if complications arise, they must be managed on general principles. As soon as it is certain that an abscess exists, the aspirator should be used. The earlier this is done, the better it is for the patient. His powers are stronger, the cavity of the abscess after aspiration is more apt to contract, and many risks are saved when the abscess is emptied in its first stages. Indeed, Prof. Hammond's advice in all cases of hypochondria and melancholia is to aspirate, whether the main symptoms be present or not; for he holds that the operation, properly performed, is harmless. De Castro punctures the liver "in the centre of its greatest vertical diamter" in all cases of suspected abscess, and says that in numerous cases operated upon by himself and others in Alexandria, Egypt, not a single bad result followed. Other authorities make similar statements, and it seems to be well proven that this procedure is almost absolutely safe.

It is undoubtedly true that a disease so serious as abscess of the liver has been robbed of a great many of its terrors by modern researches and well-directed medical and surgical measures. The future, however, may tell us a great deal of which we are ignorant at the present time.

Treatment of Ulcers.—By E. Fiebig, *Berlin. Klin. Wochenschr.*, No. 35.—After cleansing the surface of the ulcer by treatment with carbolic acid or iodoform, continuous compression by means of a thin plate of lead, such as is used in packing tea, contributes materially to the cure of callous or torpid ulcers of the leg.

ART. III.—**Round Cell Sarcoma Growing from the Conjunctiva of a Little Girl Only Five Years of Age—A Very Rare Pathological Development.** Remarks by JULIAN J. CHISOLM, M. D., Professor of Eye and Ear Diseases in University of Maryland, etc., Baltimore.

The subject of this very rare mucous growth was brought to the Presbyterian Eye and Ear Charity Hospital of Baltimore, in December, 1880. A frail little girl, aged five years, was presented for treatment by her mother. She had a singular swelling in the upper lid of the left eye, which was unaccompanied by any discoloration of the skin. It caused a round, smooth, pale swelling, larger than the largest Meybomian cyst, and was placed higher up on the lid than such tarsal tumors are seen. A closer inspection showed the swelling to be rather under than in the lid. When the lid was lifted, to find out the cause of the swelling, a brilliant red round tumor, the size of a cherry, popped out from beneath the upper lid. Although globular in form, its upper surface was continuous in a short pedicle which was attached to the mucous membrane at the fornix, where the conjunctiva was reflected from the upper lid to the eye-ball. The pedicle appeared to be very vascular, as the bright color of the tumor also indicated. The eye-ball seemed perfectly healthy. The cornea was clear and the pupil black and active. There was no conjunctival injection whatever; so that the brilliantly red, round tumor contrasted sharply with the whiteness of the sclerotic, upon which it rested.

The mother had noticed for some weeks that the lid on this left side was disposed to droop a little; but had not had her attention called to the positive swelling more than a few days prior to her visit to the Hospital. The child was very delicate, anæmic, and was very restless and fretful. The form and firmness of the tumor—resembling epulis in appearance, only of a much brighter color—induced a strong suspicion of malignancy, and indicated a necessity for prompt removal, with the hope of eradication.

Had the child been robust, a clip with the scissors could easily have separated the mass from the lid, but the size of the vessels in the pedicle and the anæmic condition of the child, with the concealed part of the conjunctiva to which the pedicle was attached, suggested the more judicious use of a ligature. For fear that the restless, fretful child might, by some unfortunate movement of the head, cause the thread to tear off the tumor in the tying, chloroform was adminis-

tered; and under the quieting influence of the anæsthetic the thread was cautiously drawn. Notwithstanding all the care bestowed upon the application of the ligature, some of the vessels in the pedicle gave way, and blood oozed very freely from beneath the lid. A compress and retentive bandage were carefully applied, and tincture of iron in full doses prescribed.

On the following day the child was brought back to the Hospital with the bandages saturated with dried blood, from the oozing of the previous day. When replaced by others, no fresh blood escaped upon the cloths. The patient had been very restless, had obtained sleep from a dose of paregoric, and had taken the iron three times a day, as prescribed.

When the child was brought for inspection on the fourth day after the ligation of the pedicle, the tumor had escaped from beneath the lid, and was lying upon the cornea. It was still attached to the eye by a pedicle, around which the thread was loosely tied. How many hours it had been exposed, the mother could not say. It had not assumed the ashy hue indicative of a sloughing mass, and its pedicle had evidently not been sufficiently strangulated. I determined, therefore, to put on a second ligature. While tightening the noose of this second thread, the pedicle yielded and the tumor came away without any loss of blood. A cold water compress was applied to the lids, and the tincture of iron in full doses was ordered to be continued.

The tumor was given to a professional microscopist for examination. It was shown to be a round small cell sarcoma, with a tendency towards spindle cells in some areas. The extremely abundant development of small, round cells confirmed the malignancy which the clinical appearance had indicated, and its return *in situ* was therefore looked for.

When the child was brought back to the Hospital the day after the tumor had been removed, an ash-colored spot of superficial ulceration was noticed on the cornea. It had not been observed on the previous day, when the eye-ball was not believed to be in any way implicated. It was unconnected with conjunctival injection or any other evidence of ocular inflammation. It was looked upon as an accidental abrasion, which the tumor might have in some way produced when it had escaped from the lid, prior to the application of the second ligature. An atropia solution was dropped in the eye, and the tincture of iron was continued, with the expectation that, as the cause of irritation had been removed, the

corneal ulceration would soon disappear. On the following day, much to our surprise and annoyance, the cornea was found to have sloughed centrally, and a small hernia of the iris was presenting at the perforation, the aqueous humor having previously escaped. The eye steadily went on from bad to worse, and in four days from the removal of the tumor all the corneal substance seemed to have melted away, leaving the whole iris exposed, with the pupil still black. The conjunctivitis accompanying this corneal sloughing was so very trivial that there seemed to be no injection, nor was there muco-purulent secretion enough to glue the lids together. The destructive process suddenly ceased with the loss of cornea. Connective tissue formation, with cicatrization, was established in comparatively a very few days, and in the course of time a white, polished substitute for the cornea was obtained.

Before this cicatrization was altogether complete, a red button, of new growth, had been already reproduced in the site of the pedicle. The development of this secondary growth has slowly but steadily continued, until now, three months from the removal of the first tumor, a second one is seen, fully as large as the first, only with much broader base and with adhesions to the conjunctival *cul de sac*. The present tumor is oblong, nearly as long as the upper lid, showing a heavy red (very prominent) fold when the lid is drawn upwards. The child still takes the iron, and has very much improved in its general condition, although somewhat pale and delicate-looking still. It sleeps well, and has a good appetite.

The two interesting features connected with this case are, first, the character of the growth; and, secondly, the causes which induced the subsequent loss of the cornea.

Eye tumors are not uncommon, and every ophthalmic surgeon, of only a few years' experience, can report from his own observation lost eyes from intra-ocular growths. Some of these would-be strictly sarcomatous tumors, growing from the connective tissue of the choroid coat of the eye, and slowly developing until they burst through the cornea, invade the sclerotic and exhibit an active growth in the socket. Such sarcomatous tumors belong to adults, and are most frequently found in persons of middle or advanced years. To be sure, tumors in the retinal structures, called gliomæ, or glio-sarcomæ, are found in children, and even in very young

ones—so young, in fact, that infants have been born with such gliomæ well developed during intra-uterine life. A bold distinction is, however, made between these and the variety of sarcoma now under discussion.

As to extra ocular developments, they again are not very rare, even in children. I here refer to tumors of the lid, some of which are congenital, while others are acquired at an early age. Cysts, atheromatous and angiomata, form the majority of such growths. Conjunctival tumors are among the rarest in this pathological list. A dermic tumor, congenital in origin, and with well-defined outlines growing with the child, but *pari passu* with the rest of the body, is every now and then met with. Occasionally a strictly local hypertrophy of mucous tissue, called polypus, is observed. Surgeons in extensive practice have seen, at long intervals, cases of highly pigmented growths, on the inner face of the lids and upon the scleral surface of the eye-ball, which have the distinguishing features of sarcomatous neoplasms, and from their more or less deeply pigmented appearance, are known as melanotic sarcomata. These, however, are not found in the eyes of children. They are malignant growths of advanced age, with the reproductive feature well marked.

As far as my experience goes, the case which I here report is unique. It is the first which I have seen out of at least 30,000 eye patients of my own, to which may be added a great many thousands that I have examined in the large eye clinics of European cities.

Those who have most carefully studied the pathological histology of tumors, refer to sarcomata as of frequent occurrence in all the tissues of the body, with an exception for mucous surfaces. Wherever connective tissue elements are found, there sarcomata may originate. Of course, connective tissue elements are found in sub-mucous tissues; and, therefore, sarcomata are sometimes developed in the buccal and nasal cavities, although they are much more frequently found in connection with fasciæ, bones, nerves or muscles. In young children, they are most seldom met with; persons of from thirty to fifty years of age are the most common subjects for such neoplastic growths. When sarcomata ap-

pear in or under free surfaces, they are broadly connected and not decidedly pedunculated. They are always sharply outlined, and differ markedly in this respect from the infiltration of sarcomatous new growths.

Our case, then, has its striking peculiarities, which will class it under the very rare forms of infantile diseases. It was a well-defined, pedunculated, painless sarcoma, located upon the surface of the mucous membrane of the eye, without any apparent deep fascial attachment—a tumor of much vascularity, of firm consistency, of a bright-red color, globular in form, and which seemed to annoy the anxious mother more than the child. Under the microscopic field, its abundant cell life, small round cells with large nuclei, and very little intercellular substance, explained its apparently rapid growth and equally rapid return when removed. The child had sustained no injury, nor had there been at any time an eye inflammation to establish a source of chronic irritation as the cause of development. On the contrary, not even was the contiguous surfaces injected from the presence of the tumor.

To what cause shall we attribute the corneal ulceration? The presence of the tumor had given rise to no apparent disturbance in the ocular circulation. When the tumor was seen, the sight was good, the cornea clear, and the sclerotic white. So perfectly natural was the whole appearance of the eye that the contrast of a bright red tumor upon the white sclerotic was very striking. The tumor was not enlarged by the imperfect construction of the pedicle, and its position under the lid remained undisturbed. On the fourth day after the ligation of the foot stall, the tumor was found exposed in the palpebral fissure, having escaped from beneath the lid at some time after the previous day's dressing. It was, therefore, somewhat bound down by the orbicular muscle, and had made some pressure upon the cornea. How long this pressure had been kept up it was impossible to say. When the tumor was removed, the attention was not attracted to any peculiarity in the appearance of the cornea. Even the day afterwards the central portion of the cornea only exhibited a superficial clouding, which was attributed

at the time possibly to the pressure effect of the tumor, and was believed to be unimportant, and was expected to disappear speedily, now that all pressure had been removed from the eye ball. The rapid breaking down of the cornea was totally unlooked for. When, four days afterwards, the cornea was found to have melted away, as it were, not by visible sloughing, leaving the unchanged iris with a black central pupil exposed without marked conjunctival injection and no suppuration whatever, the condition was considered most curious; and nothing less than the total destruction of the eye ball was expected. The active recuperation which now set in was as unlooked for, as was the previous destructive success.

ART. IV.—**Examination of a Case of "Metalic Tinkling"—with the Autopsy, and Remarks.** By F. PEYRE PORCHER, M. D.; Professor of Materia Medica and Therapeutics in Medical College of State of South Carolina; one of the Physicians to City Hospital, Charleston, S. C.

We have heard unmistakable metalic tinkling in but three cases in seventeen years' hospital experience with the constant practice and teaching of auscultation and percussion. Being greatly desirous of investigating the causes, we hastened to make an autopsy of the last example.

It occurred in a male, aet. 25, in the City Hospital. He had pleurisy, or pleuro-pneumonia four years previously, and he entered August 28th with cough and with gurgling, crackling and other signs of a cavity in the apex of the left lung. But it was the right lung which engaged our attention, and that of the friends to whom the case was exhibited. Throughout its upper lobe there was an extremely well-marked metalic tinkle—a decided "clink" upon inspiration; and upon both this and expiration, a sound as if the breathing occurred in a cavity lined with a delicate film of copper or other metal. This was obvious to the house physician, Dr. Burgess, and to all who listened to it during seven or eight days.

Death, which occurred September 12th, enabled us to gratify our desire to ascertain the peculiar condition which

gave rise to these unusual phenomena,—and we think that it will be admitted that the autopsy revealed and well explained the causes.

The lung was enveloped in a stratum of air-pneumo-thorax existing from the old pleuritic effnsion which had been absorbed. One border of the upper lobe, to the extent of an inch in length, was fastened securely—was hung up, we may say—to the internal wall of the chest, at a point within, corresponding to the position of the right nipple. So that, to get the lung out, this had to be divided with the knife. The lung was consequently suspened in air and in a state of tension, and the chest wall acted as a sounding board. Within the lung, extending from the apex some four or five inches downwards, was a large cavity with several strings or bridles stretching across it at different intervals, with a considerable collection of mucus. So the inspired air resounded against the tense walls of the cavity—the connecting bridles and the fluid serving also as elements in the production of the sounds heard in ausculation. There was no metalic ring upon percussion. At the apex of the left lung, as we anticipated, was a cavity of much smaller dimensions. There were no adhesions in this lung.

We make the following quotations, in illustration of this rare symptom. In Dunglison's Dictionary, it is stated that "metalic tinkling" was thought to be a "pathognomonic sign of a communication between the bronchi and cavity of the chest; in other words, of pneumothorax." Now it is admitted, that it can occur, says Bristowe (*Practice of Medicine*, 1876,) "in large cavities in which we not infrequently get that perfection of amphoric resonance, which is called metalic tinkling—a sound which is always most characteristically evolved in response to some sharp detonation, such as is produced by the bursting of a largish bubble, or the fall of a drop of fluid from above on to a surface of fluid below." We also have, as in our case, "metalic breathing"—"a peculiar metalic ring, or musical twang, following upon the respiratory or other sound which calls it forth." *Op. cit.* These cavities generally communicate with the external air—as through a bronchial tube. Niemeyer says of the metalic tinkling: "Only when the lung contains a capacious cavity with symetrical concave walls, capable of producing uniform

reflection of the sound waves, amphoric breathing and metalic sounds are audible." There can be also a metalic tinkling sound upon percussion. (Niemeyer.)

Clinical Reports.

Ovariotomy for the Removal of a Multilocular Cyst Weighing Fifty Pounds—Successful—Pedicle Ligatures Cut Short and Returned. By T. B. WILBERSON, M. D., Young's Cross-Roads, Granville county, N. C.

Anna Y. (colored), aged 34 years, mother of two children, of healthy parents, consulted me in August, 1880, for an enlargement of the abdominal cavity; facies uterina well marked. Before the commencement of this trouble, she had suffered with uterine disease of a grave character. The inception of this enlargement was noticed about two years prior to her visit to me, commencing deep down in the right iliac region. Her attention was first directed to this point whilst engaged in some straining manual labor, an acute darting pain being felt over the region of the right ovary. On examining the part a swelling about the size of the two fists was discovered tender to the touch. From that time to the date of operation, she was constantly annoyed by an uneasy, bearing down sensation in the pelvic cavity; severe pain in the back, extending down the right hip and thigh, dysuria, headache, nausea, and frequently vomiting. These symptoms were greatly aggravated at each monthly epoch. The menstruation was regular, with a gradual increase of the flux, until it amounted to menorrhagia. About six months after the beginning of this trouble, she experienced a severe lancinating pain in the right hypochondrium with marked tenderness over this region. During the latter part of the second year, a like sensation was felt over the upper part of the epigastrium, which was attended by nausea and vomiting. Both of these attacks began with considerable fever.

Placing the patient on a firm bed, with her legs drawn up and her body freed of all constricting clothing, an immense distension of the abdominal cavity was plainly seen extending from the pubis to the ensiform cartilage. With a hand on each side of the parietes, the growth could be slightly tilted towards the left side—this movement giving rise to

pain over the right lobe of the liver and stomach. Percussion was dull over the whole cavity—a little more marked over the right ovary. To deep pressure and palpation, a distinct fluctuation was given. The sound entered the womb about three inches, slightly anteflexed, but mobile. At the umbilicus a distinct sulcus could be felt, marking the separation of the tumor into two cysts. The walls could be slided on the sacs, but owing to the extreme distension could not be raised. The condition of the woman was bad, the least exertion giving rise to labored and hurried respiration; emaciation extreme, bowels constipated—six or eight weeks freqnently intervening between the evacuations of the alimentary canal. The symptoms given evidently pointed to peritoneal inflammation having taken place, together with the pain elicited by the least movement of the tumor, warranted the suspicion that adhesions had taken place between the cyst walls and the peritoneal coats of the stomach and right lobe of the liver; but the almost positive proof of the fluid contents of the sacs and the rapid breaking down of the constitution pressaging an early fatal termination of the case justified surgical interference. After a short preparatory treatment by the use of tonics and daily laxatives, one week prior to the operation, she was given twice a day the following prescription:

℞. Acid. carbolic.....gtts. xij
Quiniæ sulphur.....grs. xij
M. Make pills, xij.

On the first day of September, 1880, the patient was placed on a narrow table, having two hours previously taken half glass brandy with ten grains quinine; and when fully under chloroform, the line of the intended incision was annointed with carbolized glycerine. Assisted by Dr. Clack, I made an incision from the umbilicus to near the pubis in the median line; all the parts having been divided and all oozing of blood stopped, the peritoneum was opened on a grooved director to the extent of the external cut. Very little ascitic fluid was present. This cut brought into view the shining cysts. It was now found impossible to pass the hand between the parietes of the abdomen and walls of the tumor; a sound was carried around detecting adhesions to the stomach and liver. To reach these adhesions and break them up, I was compelled to extend the incision upwards to within a few inches of the xiphoid cartilage. On each side of the upper portion of the tumor there was an exogenous cyst, the size

of an ordinary pear, attached to, but not communicating with, the larger tumor; this cyst was transparent, and contained a reddish gelatinoid like fluid. The hands being dipped in artificial carbolized serum, one was placed on the under surface of the fundus, aud with the other the adhesions of the stomach at this point were carefully broken up. There was considerable oozing of blood from the denuded coats of this viscus to check which a 1-30 solution of carbolized glycerine was used. Passing the hand around on the right side, the hepatic adhesions were, with some difficulty, finally broken up. This freed the tumor from the viscera. Turning the patient on her right side, the upper cyst wall was entered by a trocar and the contents were drawn off; the lower cyst was treated in a similar manner. The collapsed tumor was then drawn out of the abdominal cavity—the pedicle being short and a little over four inches across. This was transfixed through the middle by a needle armed with a double carbolized ligature coated with carbolized wax; the ligature was cut and each lateral half securely tied, the ends of the strings clipped short, the sac divided above these, and the pedicle dropped in the pelvic cavity. At this stage of the operation, some trouble was experienced by the protrusion of the small intestines; these were carefully protected by a warm flannel until the abdominal cavity was thoroughly cleansed of all extraneous matters by soft sponges, squeezed out of the artificial carbolized serum; the protruded viscera were then returned and the abdominal wound closed by the interrupted carbolized suture coated with carbolized wax, a half inch a part—each suture passing through the peritoneum. Several folds of soft cloth saturated with a 1-40 solution of carbolized glycerine was laid along the line of the incision; these were covered by several folds of flannel, the whole retained by a wide bandage, completed the dressing. Left ovary healthy. The patient re-acted well; no nausea nor vomiting. The following pill was directed to be given thrice a day:

℞. Acid. carbolic.....gtt. xij
Quiniæ sulphat.....gr. xij
Pulv. opii.....gr. vj.
M. S. Make twelve pills.

The patient was also to take by the mouth every three hours three tablespoonsful of milk, and one teaspoonful of lime water. The woman continued to improve, the long line of wound, over fifteen inches in extent, healing by the

first intention. The sutures were removed on the fifteenth day, she making a good recovery. Over six months have passed since the operation was performed and she is now a regular laborer on the farm.

This case presents several points of interest to the surgeon, and especially to the ovariotomist, on account of the adhesions to two of the most important viscera in the abdominal cavity, and the long line of incision required for its removal. Mr. Spencer Wells states that in cases where the incision is from three to six inches, the chances are nearly the same; but when beyond six inches, the danger increases in proportion to the length of incision. This case shows the importance to the operator of getting up the full history. All evidence of past peritoneal inflammations should be well sought for. At these points adhesions will most likely have taken place, for even after the best efforts, the most erudite diagnostician is liable to be sadly misled. In the after treatment of these patients, the proper alimentation becomes a subject of considerable interest—whether the food at first shall be given by the mouth or rectum, for it is necessary that the whole alimentary canal shall be kept quiescent. It is the opinion of several distinguished ovariotomists that but little food should be given during the first seventy-two hours by the mouth, waiting for a subsidence of the flatulent condition of the bowels.

Another point is to note well the proper depurative action of the kidneys, for it is a maxim long conceded by surgeons that any organic disease of these organs effectually bars all operative interference. During the after treatment of surgical subjects the discharge of a normal quantity and quality of urine is a favorable augury; but let the urine become scant in quantity, heavily loaded and of an offensive odor, it then becomes a grave premonitor of impending danger to the patient. In the use of carbolic acid internally, before and after surgical operations, in addition to its proving a valuable destroyer of zymotic germs, thereby lessening the dangers of septicæmia. It also acts as an excellent aid as a a depurant to the kidneys—gently stimulating these organs, thereby greatly assisting nature in the casting off of all effete prejudicial matter through these emunctories.

Original Translations.

From the French and Spanish. By CHAS. R. CULLEN, M. D. (P. O. Richmond, Va.), Henrico Co., Va.

Uterine Washes After Childbirth.—Dr. Schrœder, before the Berlin Gynæcological Society, stated that puerperal fever should be treated principally locally. As in surgery, the chief point is disinfection. The question of knowing when to disinfect resolves itself, in every case, to considering the womb infected, and not to wait till fever is set up, accompanied by its usual symptoms. How, then, ought disinfection to be made? In lesions of the vagina and neck of the uterus, the question is easy to answer. While the irrigation of the uterine cavity is somewhat difficult, the best mode is by means of a hollow sound, and phenic acid water is the best material. Clinical experience in the University speaks most favorably of the mode, and the results are highly favorable. In the winter of 1879–80, sixty-five of 282 obstetrical cases were really sick, and of these only two died—which results justified the treatment.—*Gazetta de Catalia.*

Sleeplessnees, when caused by grief, morphine, narcine and codeine are best suited; when from nervousness and arterial excitement, bromide of potassium is called for, but is contra-indicated if there is anæmia. In purely nervous sleeplessness, chloroform in small quantities answers best. Hydrate of chloral suits in all cases except in dyspeptic and heart disease, and those who suffer great debility. The sleeplessness of aged persons and of debilitated constitutions should be treated with tonic medications—as wine, bitters, etc.—*Courier Medical.*

Severe Case of Disease of Liver.—The patient, aged 38 years, had suffered fourteen years with pain in the region of the stomach, and symptoms of dyspepsia, although without going to bed. In June 1878, he had a violent bilious attack, from which he recovered, to some extent. In November following, he had another violent attack, and again in June 1879, leaving him more debilitated. In December there was the appearance of an hepatic abscess, opening into the transverse colon. The situation and condition of the patient was anything but favorable. Everything passed rapidly through the stomach, and pus, in abundance, mixed with hepatic particles. This continued more or less for three months, but by injections of large quantities of tepid and disinfectant washes, healing proceeded slowly, and in three months a perfect cure was effected.—*Mariani.*

Maternal Lactation.—Dr. Blache read a paper before the Madrid Medical Society, showing the results of maternal lactation in different countries. In England, the increase of population is 145 for every 10,000 inhabitants. In Sweden and Norway, the proportion is greater. In these countries maternal lactation is general, and the mortality of infants is only 15 in 100 in Sweden. and 10 in 100 in Norway. On the other hand, the statistics for Switzerland show the increase to be 81 for every 10,000 inhabitants; 77 in Italy; 130 in Germany; and 36 in France.

Note.—This may be true, as showing that maternal lactation should be preferred to bottle-raising. It is no less true that many mothers cannot raise their own children from their own nursing, no matter what diet they may have; and condensed milk answers satisfactorily for the babies. Many children have been sacrificed by the persistent efforts to raise them from their mother's milk.—*Revista*, Madrid, Nov. 1880.

Phenic Acid.—Dr. Raynaud presented for Dr. Desplats a paper on the antipyretic action of phenic acid, of which the following may be considered a resume:

1. Phenic acid is a safe antipyretic, prompt and certain in action, and applicable to all fevers.

2. It should be given boldly, and at the same time with care. care.

3. Intermitting with large doses, it answers better than continued administration.

4. It is best to watch the effects of the acid on the heart and kidneys, though it is not certain that phenic acid produces degeneration of these organs. The dose varies from fifty centigrammes to two grammes, in solution.—*Ibid.*

Rapid Dilatation of the Urethra.—Dr. Terrillen, with Drs. Nepier and Dulens, formed a commission to report upon the plan of Dr. Simonin, of Nancy, France, relative to the rapid dilatation of the urethra in the female. This was first reported in 1872, and since he had made several communications to the Academy of Medicine, and insisted upon the advantages of the plan, and at the same time of the little danger attending it. The patient being under the influence of chloroform, by means of a speculum, a dilatation of from 23 to 24 milimetres, without inconvenience, was obtained. No after pains, with incontinence of urine resulted. Such is the substance of the conclusions of the first work of Dr. Simonin.

In his second work to the Surgical Society, he communicated two new observations. In the first, he treats of a re

bellious cystitis, with thickening of the walls of the vagina. The patient being chloroformed, he made the exploration with his finger, which confirmed his diagnosis. No incontinence or pains resulted.

The second case did not afford such favorable results. The patient was 41 years of age, and had calculus. After the first dilatation, the calculus broke into fragments, which were removed afterwards at different times. Incontinence was one result.

Dr. Despés stated that this subject had been before the Academy three years, and is still unsettled as to the best mode of extracting particles of broken calculi.

Dr. Mark Sée obtained this object by means of a silver tube or funnel; and, so far, no evil result, like incontinence, had been seen.

Dr. Terrillen has obtained good results from dilatation of the urethra in a female aged 50 years, the patient having cancer of the uterus, which produced violent pains during micturition, and which was relieved in no other way.

Dr. Cruveillier found this mode a good one in certain cases of vesico-vaginal fistulæ.—*Ibid.*

Phenic Acid Locally in Erysipelas.—Dr. Rothe, of Altenburg, furnishes this prescription:

℞. Pure phenic acid.

Alcohol	1 part.
Spts. turpentine	2 parts.
Tinct. iodine	1 part.
Glycerine	5 parts.

M. Apply every two hours, and cover immediately with a cloth of fine cotton.

Internal medicines are also given. Digitalis and quinine are given during the fever, etc. No bad results as yet have been obtained, and no death from erysipelas.—*Ibid.*

Small-Pox.—The Madrid Society discussed the question, Whether vaccination should, or should not, be compulsory? As the law in Spain compels vaccination, the evil result is given in the great mortality attending the disease. Patients die during the panic for want of attention.

In 1872,	1292	cases;	deaths,	14 per cent.
1872,	4127	"	"	18 "
1874,	5182	"	"	19 "
1875,	5024	"	"	20 "
1876,	3897	"	"	24 "

Average deaths, $20\frac{1}{2}$

—*Revista*, Madrid, No. 120.

Anomaly—Four Testicles.—Dr. Cebeira presents a singular case—a soldier with venereal chancres, buboes, etc., and a scrotum having four distinct testicles—two in each sac—of different sizes. The supernumerary testicle of each side was above the other. The venereal diseases of the patient seemed to be in proportion to his testicles.—*Revista de Catalima.*

Effects of Liquid Chloral on the Scalp.—Dr. Brown-Sequard asserts that his experiments lead to the following conclusions: That concentrated chloral applied to the scalp, produces no anæsthetic effect, and presents the following differences as compared with chloroform:

1. That chloral acts slower, but produces death oftener than chloroform.
2. That chloral produces oftener hæmorrhages—pulmonary, renal and intestinal—than chloroform.
3. That chloral increases the secretions of the abdominal glands, not perceptible in case of chloroform.
4. That chloral produces diabetes, while chloroform does not.
5. That chloral is absorbed by the vessels of the scalp in greater quantity than chloroform.—*La France Medicale*, Jan. 29.

Germany has 8,404 Doctors of Medicine, of which 944 are at Berlin, under legal direction, with medical judges. It may have defects, but better to live with defects than not at all.—*La France Medicale.*

Typhoid Fever Treatment (by Dr. Hallopeau). We proceed in the following manner: As soon as the patient enters the hospital, we give him 15 to 25 grains of calomel. The day after, we give salicylate of soda, 30 grains—or the sulphate of quinia, 15 to 22 grains—at a dose, followed by these two medicines alternately. We also prescribe cold lotions several times a day. In the ataxic form, we use digitalis with the cold baths, by which the visceral congestions are combatted. Every two hours, some food is given—a cup of milk or of beef soup. During the day, over two pints of milk were taken by each patient. If these medicines were not given, the temperature, morning and evening, remained the same—showing that cold baths alone could not reduce the temperature.—*L' Union Medicale.*

Abortive Treatment of Variola (by Dr. Bouyer). Considering that variola is essentially a zymotic malady, the Doctor had the ingenious idea of arresting the fermentation, and his choice of medicines was salicylic acid. At present, success

appears to have crowned the efforts of others. The twenty observations constituting the basis of his article, give the following results;

The eruption is most discrete; the fever of suppuration is always moderated and often prevented; the pustules are less in quantity and smaller in size, and less purulent in confluent cases. The accidents, generally, are little alarming—even insignificant; the complications are rare; the duration of the disease is considerably abridged; the cicatrices on the face are nothing; the convalescence is rapid. Salicylic acid powerfully moderates all morbid movements, humoral fermentation, fever, suppuration, nervous symptoms, etc. The benefits of the acid are more apparent after the height of the disease.

M. Bouyer, a physician extensively known, is a clear observer and an indefatigable worker. We recommend his work to the attention of our *confreres.—Journal de Therapeutique.*

Proceedings of Societies.

Baltimore Academy of Medicine.

H. P. C. Wilson, M. D., President; E. F. Cordell, M. D,, Reporting Secretary. Session 1880–81.

Blindness Followed by Ascending Progressive and Fatal Paralysis.—Dr. J. J. Chisolm reported the case of a gentleman, aet. 40, and weighing 180 to 200 pounds, who one day (having previously had no symptom of any eye or other trouble) found his eyes painful on motion, after having used them for one or two hours. The sight of one eye, impaired during the day, was lost by night. The next day a similar occurrence took place in the other eye, and the patient became in a few hours totally blind. After forty-eight hours, receiving no benefit from anything done for him, he came to Baltimore. On arriving at Dr. Chisolm's office, he was noticed to have some difficulty in walking; the pupils were found to be widely dilated, the ophthalmoscope revealed choked disks with effusion in both. There was nothing else discoverable in the case. He was leeched, and iodide of potassium given in large doses. The next morning he had lost the power of feeling in either foot, also the control of the sphincter ani muscle and the ability to pass his urine. He felt tickling in his legs. The following day, he lost sensation and the power of moving his lower limbs from his

hips downwards. The paralysis crept on slowly upwards, until the abdominal muscles became involved, and respiration had to be carried on by the thoracic muscles alone. Finally the diaphragm alone acted in respiration. He died in six days, his mind being clear to the last. No autopsy was permitted.

The case was curious, in that the trouble began with the vision and then darted from the other extremity, in the other senses being good, whilst vision alone was lost, and then of sensation, and then there was loss of motion. There was no evidence of syphilis in the case, and the patient had been perfectly well up to the attack.

Unusual Situation of Diphtheritic Membrane.—Dr. Chisolm reported two cases of diphtheritic deposit confined exclusively to the lower eye-lids. The glands at the angle of the jaw were enlarged. There was no febrile excitement. Iodoform locally applied caused rapid disappearance of the membrane.

Dr. Arnold mentioned the case of a child who, three days after the operation of circumcism, was taken ill. A large diphtheritic patch formed on the wound. The cervical glands were enlarged, although nothing was to be seen on examining the throat. The glands in the groins were not enlarged. The child gradually sank and died. Diphtheria was present in the neighborhood at the same time.

Divergent Squint.—Dr. Theobald reported a case of divergent squint in a lady twenty-five years of age, the result of an operation for convergent squint performed fifteen years previously, in which he obtained an excellent result from advancement of the tendon of the internal rectus muscle of the squinting eye, combined with tenotomy of both external recti muscles. The method of securing the tendon in its advanced position, suggested by Brudenell Carter, in which the needles are passed under the conjunctiva and brought out over the insertion of the superior and inferior recti muscles respectively, so as to include a broad conjunctival bridge, was adopted. The effect of the operation was not only satisfactory from a cosmetic point of view, but still more important, the restoration of binocular vision was secured.

Opium Poisoning in an Infant Successfully Treated by Belladonna.—Dr. Chew reported the case of a child, aged three months, who was given by mistake a powder containing one-fourth grain of morphia. The mistake was not suspected until six-and-a-half hours after, when Dr. Chew was called in. The little patient was then in a deep coma, which was be-

coming more and more profound. Tincture of belladonna was administered at short intervals, in one-and-a-half drop doses and shaking; coffee and the application of ice to the spine were at the same time employed. In one hour and-a-half atropinism was produced, and simultaneously improvement in the child's condition was manifest. In four-and-a-half hours after the doctor first saw it, it was considered out of danger and allowed to go to sleep.

Intra-Uterine Fibroid Tumor.—Dr. H. P. C. Wilson exhibited a specimen of a fibroid tumor removed this afternoon from a patient, aet. 38. She had had hæmorrhages for five or six years, being well only six or eight days in each month. In consequence, she was greatly debilitated and very anæmic, and at times suffered great pain. She was unmarried and her cervix was small, indurated and conical, admitting a probe with difficulty into the uterine cavity. It seemed impossible to get into the uterus sufficiently to remove the tumor, and öophorectomy seemed the only resource left to save her life. By the use of dilators and sea-tangle tents, of gradually increasing size (first immersed in glycerine and carbolic acid), he secured sufficient dilatation, to enable him to discover a tumor occupying the uterine cavity. The os internum was next split both in front and behind, and when the patient had recovered from this operation and from menstruation, which had meanwhile come on, the use of the tents and dilators was resumed. Yesterday the cervix was packed with as many sea-tangle tents as could be gotten into it, and on removal to-day, a Barnes' dilator was introduced, filled with hot water and left in *situ* about one hour, when—the patient being under chloroform—a volsellum forceps was passed in and the tumor seized and drawn down.

It was found to be sessile and attached to the fundus. The uterus being steadied by a hand on the abdomen, the tumor was sawed away in several sections with Thomas' scoop; a portion was also cut away with the saw scissors, the whole of it being thus removed. Five-and-a-half weeks were required to prepare the patient for the operation, which consumed two-and-a-fourth hours. The operation was completed by passing a small syringe to the fundus, washing out the cavity gently with warm water and carbolic acid, and then mopping out the uterus with Monsel's solution—carbolic acid and glycerine. Her prospects at the present time are favorable. (Nearly four months have elapsed since the case was reported, and Dr. Wilson reports the patient as perfectly well and menstruating normally.—Reporter.)

Dr. McKew inquired whether a fusiform cervix with so large a body, was not rare.

Dr. Wilson replied, No. The cervix would have been obliterated had the tumor been allowed to remain and grow so as to bring its dilating force to bear upon the internal os and cervical canal. It depends much upon the seat of attachment of the tumor; if it be attached at the fundus, non-dilatation of the cervix is not uncommon. Dr. Wilson referred to a patient with a fibroid in the uterus—whether interstitial or not, he was uncertain—in which the os was unaffected. The patient has had pelvic cellulitis and peritonitis, and in consequence, the doctor was afraid to introduce a tent in order to explore the uterine cavity. In another case, with a large fibroid in the walls of the uterus, the os could not be dilated by the use of tents. There are as many cases of this sort without dilatation of the cervix as with it.

Paralysation of Heart in Diphtheria.—Dr. Chew reported a case of a girl, aet. 7, who had a slight redness of the throat—apparently a simple pharyngitis. The next day a diphtheritic membrane was visible. The case soon developed into the gangrenous form, and large gangrenous masses came away from the faucial and nasal surfaces. Carbolic acid spray was employed and sublimed sulphur was thrown over the entire diseased part. The patient did well for ten days; then a sudden change took place; the pulse fell to 44, and there was a manifest tendency to cardiac paralysis. There was some difficulty in swallowing, followed by regurgitation of food. For several days, life had to be sustained by injections of brandy and milk. She revived and the pulse went up to 52. Again the heart gave way, and the pulse fell again to 44. A large syringeful of brandy was then injected hypodermically into the arm, after which the stomach bore stimulants and the pulse rose to 80, though still feeble. The urine, once and awhile, was loaded with albumen. The danger in such cases is from sudden paralysation of the heart. Jenner reports a pulse of 16 per minute. Dr. Chew insisted on the importance of injecting the nostrils in nasal diphtheria, as urged by Jacobi.

Dr. McKew reported the case of a child, aet. 5, who had an attack of faucial diphtheria, accompanied with extreme feebleness. She was convalescing from this, and was found one day at noon playing with her dolls, lying on her couch and apparently out of danger. Shortly after this visit, she arose suddenly to her feet to get a doll which had fallen upon the floor, when she fell back and was found to have expired.

Extra-Uterine Pregnancy—Removal of Decomposing Fœtus Through Umbilicus.—Dr. Erich exhibited a specimen of a decomposing female fœtus of about nine months development, with the following history: In February, 1880, the patient noticed that she was getting "a lump in her stomach." Towards the latter part of the following spring, she quickened. She continued to grow larger until August; then the swelling began to diminish, and violent cramp-like pains with symptoms of peritonitis appeared. In October, pus began to discharge through the umbilicus. Two days ago (*i. e.*, April 3rd, 1881,) the patient came under care. She emitted a most offensive odor. The head of one femur projected from the umbilicus. To day the entire fœtal remains were removed. No cutting was done and as little interference with the sac as possible was practised, for fear of making an opening through some other part of the sac weakened by the degenerative process. A portion of the scalp was found attached to the cyst wall, and was removed. The parietal and frontal bones were found lying loose in the cyst. Evidently the fœtus had reached term early in August; the liquor amnii had then been absorbed, and in consequence of this, peritonitis had been set up. There was no sign of the placenta, which probably was absorbed. The after-treatment consisted in filling the cyst with carbolized cotton, so as to cause it to heal from the bottom, and cause all the decomposing matter to be thrown off. The patient is doing well.

Dr. McKew could not suppose the placenta to have been absorbed without more serious symptoms.

Dr. Taneyhill suggested that the greater part of the placenta may have been discharged in the decomposing fluids.

Dr. B. B. Browne said in most of these cases, the placenta is attached to the Fallopian tube or some of the adjacent tissues; in Dr. Wilson's case of "Extra-Uterine Twin Fœtation," it was attached to the broad ligament. In this event it may remain entirely or partially unabsorbed and may give no trouble.

Complete Inversion of Uterus During Labor.—This case, reported by Dr. Reiche, occurred in a patient, aet. 28, married in 1875, and who had had three consecutive breech presentations and one miscarriage at two months, there being retention of the placenta of three of these. The fifth pregnancy had advanced to about eight-and-a-half months, when, on August 13th, 1880, labor took place—the breech presenting. After some delay, owing to the want of pains, the child was expelled, apparently dead, but was resuscitated.

A tumor was now found projecting through the os uteri, supposed to be the placenta. The cord was cut and tied. The pains had been entirely arrested since the beginning of the expulsive period, which had been completed by the voluntary efforts of the woman alone. Suddenly a sharp pain appeared, the patient placed her hands on her loins, and with a violent effort, the uterus was forced out between her thighs. The placenta was adherent and so firmly, that it was with difficulty detached, and then only in small masses at a time. The uterus was changed in shape—that part occupied by the placenta being soft, projecting and *completely flaccid.* The patient complained of excruciating pain in the left leg. An effort was made to restore the organ to its place, which was arrested by the collapse and cessation of breathing of the patient. Hæmorrhage, which was profuse, was relieved only by sponging the placental site with Monsel's solution and glycerine. Dr. Erich was called in consultation, with whose assistance, under chloroform, restoration was effected—that part of the organ inverted last, being first returned. Fluid extract of ergot (℥ij) was then injected deep into the abominal muscles. Fever ensued with tympanites and nausea. There was a fœtid lochial discharge, the offensive odor of which was relieved by boracic acid suppositories. The paralysis of the uterus continued until August 27th, when the whole organ was found to be well contracted. There was no negligence in this case, no mechanical or exciting cause to which it could be referred. It was the result of paralysis of the placental site, clearly made out, and lasting for some time after reposition.

Dr. Erich said the best means of dilating the cervix was by introducing one finger and then adding others until sufficient space was obtained for the return of the inverted position. In the present case, the placental site of the uterus was not only paralysed but thinner than the rest of the organ. Boracic acid, as employed, has decided advantages over carbolic acid, being perfectly harmless (which is far from being the case with carbolic acid), and being but slightly soluble in water, remains in the vagina for several hours. Most cases of inversion depend upon paralysis of the placental site. Traction upon the cord is extremely common, every old midwife practising it; yet how rare is inversion. Dr. Erich looked upon hour-glass contraction as due to this same form of paralysis. He also related a case in which the bulging of the placental site was mistaken by the physician for a subserous fibroid.

Dr. Morris had had two cases of inversion of uterus during labor in his experience, in both of which restoration was effected without difficulty.

Analyses, Selections, etc.

Prepared by HUGH M. TAYLOR, M. D., Demonstrator of Anatomy, etc., Medical College of Virginia, Richmond.

Inflammation of the Great Sciatic Nerve.—Under this title, we find in the *Michigan Medical News*, of March, 1881, a clinical lecture by Dr. Wm. Pepper, of Philadelphia, and, as usual, his lecture merits notice. After alluding to the symptoms and crippling effects of this disease, he deals with its causes. Among them may be enumerated all the influences which combine to produce neuralgic affections. A very frequent cause is chronic malaria, which is very likely to affect all the nerves of the body. In other instances, the origin of the symptoms would seem to have been associated with the absorption of lead, copper or mercury, in some of their various forms. In chronic lead-poisoning there is generally a neuralgia of almost all the nerves of the body. A third cause is inflammation of the sheath of the nerve, which becomes thickened, and so compresses the nerve-fibres. Rheumatism very often acts in this way, a rheumatic inflammation of the nerve-sheath or nerve substance standing at the root of a great many cases of the most obstinate and painful cases of sciatica. As regards treatment, in a case of chronic malaria with chills and fever, followed by neuralgia, the best treatment would undoubtedly be quinia, iron, arsenic and belladonna. In many cases I have found that more relief was afforded by large doses of arsenic than by any other remedy. Occasionally I have injected the arsenic under the skin. When there is distinct local inflammation, I treat the disease with large doses of iodide of potassium, and minute doses of the bi-chloride of mercury. If it results from lead-poisoning, the appropriate treatment for that condition should be pursued. If we desire to cause absorption of inflammatory matters inside the sheath, the best way to do so is by means of severe blistering, or by the actual cautery. The actual cautery, in particular, has great absorbent action, and powerfully relieves over sensibility of the nerves. Another excellent treatment is by hypodermic injection of morphia and atropia, deep down into the adjacent muscular

structures. He advises a formula of one-sixth to one-fourth of a grain of morphia, and from one-ninetieth to one-sixtieth of a grain of atropia. In employing this formula, take care not to establish the opium habit; hence, diminish the dose as the disease subsides. In cases where the localized pain is very intense, excellent results are derived from the hypodermic injection of from eight to twelve minims of chloroform, taking care to keep the needles out of the way of the arteries. Though incomparable as a temporary destroyer of pain, the effects of the chloroform are not very permanent. Galvanism is very quick, in some instances, to relieve pain. The mode of application should be with the positive pole at the seat of pain, and the negative pole along the nerve trunk. Where the muscles have wasted to any great extent, the Faradic current is the best.

Bi-meconate of Morphia.—Dr. T. B. Curtis called the attention of the Boston Society for Medical Improvement to this preparation of morphia, which he believed to possess advantages rendering it superior, for certain exceptional cases, to all other opiates. Morphia, in its natural condition in the poppy, is combined with meconic acid. The bi-meconate was introduced by Squire, 1839, in the form of a solution of bi meconate of morphia, which was said to be of the same strength as laudanum, and to possess in an eminent degree the sedative powers of morphia, but having this superiority, that it disturbed the head, bowels, and stomach less than any other preparation of opium. For hypodermic use, the solution, according to Squire, could be evaporated to one-twentieth of its bulk, so that three minims were equal in power to a half grain of acetate of morphia. In prescribing this salt, it should be borne in mind that it contains only half as much morphia as an equal weight of the sulphate. To obtain similar effects to those of the sulphate, therefore, a double dose must be given. Dr. Curtis had recently met with three patients, who were inconvenienced in various ways by opiates to such a degree that, although suffering much pain and distress, they were debarred from using these means of relief. One was an elderly lady, who had for some weeks been affected with protracted hepatic colic and jaundice, due to gall-stones, and followed by severe hepatic pain and nausea. Opium and morphia caused intolerable nausea and vomiting; but the bi-meconate was taken in fair doses, with little or no inconvenience, and was productive of much relief and benefit. Another case was that of an old gentleman who greatly needed the assistance of anodynes, but pre-

ferred to abstain from opiates on account of the intolerable itching, combined with wakefulness, which invariably followed their administration. This patient, however, used the bi-meconate in full doses successfully, without the production of pruritus. The wakefulness continued to follow the use of morphia even in the form of bi-meconate; but a ten-grain dose of chloral added sleep to the relief from pain brought about by the anodyne. The third case was that of an elderly patient of a neuralgic temperament, suffering from a protracted and very severe epididymitis. Past experience had so convinced him of the ill effects produced in him by opiates, that when first seen by Dr. Curtis, the patient, although suffering severely every night, was using suppositories containing only one-sixth of a grain of opium. The bi-meconate was tried, and was taken nightly for many weeks, in doses varying from a quarter to three quarters of a grain, without any ill effects. Dr. Curtis said that errors were frequently committed in the administration of the tinctura opii deodorata, a favorite opiate with many practitioners. The composition of this preparation is said to be the same as that of laudanum, of which thirteen minims, or twenty-five drops, equal one grain of opium. The deodorized tincture, however, is not really a tincture, but a watery solution of the extract of opium, and its drops are equal to minims. Therefore, if it is used in drops, like laudanum, a double dose will unintentionally be given. The dose in drops should not exceed the number of minims considered necessary.—*Boston Med. and Surg. Jour.*, Jan. 6th, 1881.

Baby-Carriages and Bicycles.—Dr. Henry H. Smith, of Philadelphia, contributes an interesting article on the injurious effects of the constant use of baby carriages and bicycles on the physical development of the young. He lays stress upon the fact that the erect posture is the one most conducive to perfect physical development. The baby-carriage does not secure muscular action, such as supporting its head, holding erect its spine, etc. A child that is carried is being constantly educated or trained in balancing its head and shoulders; whilst the abdominal muscles, which here act as flexors of the spine, also compress the liver and other abdominal viscera, and aid the peristaltic action of the bowels, as well as the action of respiration. In addition to this, such infants are sooner able to sit alone, and creep or walk more vigorously than those who, in the continued supine posture of the baby-carriage, fail to recover this muscular

exercise. With the increased expansion and contraction of the thorax, there is also improved respiration and oxygenation of the blood corpuscles; whilst the waste of tissue that ensues on muscular action creates increased necessity for repair, and we therefore have increased appetite, with improved digestion and nutrition. Another evil liable to ensue from the constant use of the baby-carriage is the jarring and concussion of the delicate brain and spinal cord of the infant, created by bouncing the carriage over gutters or up and down the curbstones of our sidewalks. This evil is quite as serious to the infant as the concussion of the spine alluded to by Mr. Erichsen as the result of railroad travel is to the full-grown man—the nervous system of the child being very easily impressed by jars or concussions. Some years since, the "baby-jumper," or a mechanical arrangement by which a child sat astride of a broad band, so suspended that its toes could barely touch the ground, was quite the fashion, as it enabled the child to take care of, and amuse itself whilst taking exercise by a species of jumping, in which it was aided by the elastic bands, from which it was suspended. The development of pes equinus, caused by the constant touching of the earth by the toes as the child strove to obtain its spring, soon led to its being given up. A somewhat similar deformity the writer fears is likely to be created by the use, by young and growing lads, of the bicycle. The extreme flexion of the toes to reach the treadle that works the machine, causing too much action of the flexors of the toes, as well as the gastrocnemius and soleus muscles, thus also inducing pes equinus. If, as is possible, this means of locomotion is, with some, to supercede the more advantageous exercise of walking, let at least special attention be given to the length of the rider's leg, and let it be seen that the treadle is not so far from the sole of the foot as to necessitate a constant elevation of the heel in order that the toes and ball of the foot can reach the point of progression.—*Philadelphia Medical Times*, January 15, 1881.

Digitalis in Scarlet Fever.—Regarding the treatment of this common disease, Dr. William B. Atkinson, of Philadelphia, writes: In my own experience, no single remedy has given me such good and such contant results as digitalis. About the year 1858, Dr. Lewis P. Gebhard read a paper before one of our medical societies, very strongly advocating the use of this article in all forms of this disease, and claiming for it the character of a specific. His method was to put one

drachm of the powdered leaves of digitalis to twelve tablespoonfuls of boiling water, and, when the infusion had cooled, to give it in teaspoonful doses every hour, according to the age of the child and gravity of the symptoms. Since that time, I have used it in a large number of cases, and with the best results. I generally order it prepared in the same way, and direct the nurse to give it in teaspoonful doses every hour or two, until the pulse and temperature are positively reduced; and then to lengthen the interval so as to maintain the effect thus obtained. I believe that I have almost invariably observed the symptoms to moderate within from twelve to twenty-four hours, and I feel confident that while I have never in a single instance known any of the so-called poisonous effects of the remedy to follow, I have also failed to see the usual dangerous sequelæ in many cases, and only slightly in any. I have never seen anything to warrant a belief in its usually dreaded cumulative effect. Professor Bartholow says the antipyretic effect of digitalis is much insisted on in Germany. "In scarlet fever, its utility is very great; it lowers the temperature, and maintains the action of the kidneys, thus obviating the two principal sources of danger in that disease." He gives a drop or two of the tincture every hour or two, according to the age, in a little water, or from half a teaspoonful to a teaspoonful every two, three or four hours. He further says, that in a considerable experience in the treatment of this disease, he has found digitalis uniformly successful, and taking in a group of the ordinary cases of scarlatina simplex and scarlatina anginosa, it is the most efficient remedy we possess. Dr. Sydney Fennel has used it largely in scarlet fever, and finds, when administered early in the fever, the inflammatory action of the glands of the neck subsides gradually. The fever leaves the patient in the usual time. Desquamation is slight, and the chances of chronic nephritis are reduced to a minimum. He also confidently asserts that the infectious character of the disease is lessened by the remedy, if not destroyed. (*Lancet*, January 23d, 1869.) Nearly all recent authors agree as to the value of digitalis in the dropsy following this affection. If they would but employ it from the inception of the disease, they would rarely see any such sequel. Dr. Lewis Smith (*Diseases of Children*) says: "Digitalis will often be found useful as a heart tonic, when the pulse is rapid and weak. One teaspoonful of the infusion, or four or five drops of the tincture, may be given every four hours to a child of five years." The late Prof. George B. Wood says: "I have

found great apparent advantage, in cases attended with a very frequent pulse, from the use of tincture of digitalis." Dr. Atkinson's experience enables him to endorse this last statement fully. In conclusion, he urges upon the profession a fair trial of this remedy, bearing in mind that such a test requires the employment of a good quality of the drug and its administration with care.—*Medical and Surgical Reporter*, December, 1880.

[*Note by the Editor.*—Notwithstanding the eminent authority of Dr. Bartholow, we must caution practitioners from using "from half a teaspoonful to a teaspoonful [of tincture of digitalis] every two, three or four hours," in scarlatina. We have seen alarming cardiac depression follow the administration of fifteen minims of tincture of digitalis in a case of scarlet fever—the only case, in fact, in which we have ever seen cause for alarm from the use of digitalis—in a youth fully 17 or 18 years of age.]

Anthracæmia—Wool-Sorters' Disease.—Dr. W. R. D. Blackwood, of Philadelphia, contributes to the Philadelphia *Medical Times*, November, 1880, an interesting paper on this disease, which has attracted especial attention in England. A committee appointed from the Bradford Medico-Chirurgical Society reported the result of four typical cases, with the results of *post-mortems*. They seem to leave no doubt of the fact that this affection is due to blood-poisoning by the so-called bacillus anthracis, a low form of bacteria, presumably contaminating the wool, and which gains entrance to the blood of those affected through the likeliest channels—the lungs or stomach. The symptoms so far recognized are violent cephalalgia—often unilateral—fever, intensifying in its progress, severe pleuritic pain, crepitant inspiratory rales, and finally profuse diarrhœa. The differential diagnosis between anthracæmia and typhoid fever is clear, and ordinary care only is requisite to distinguish them. Cases have been complicated with malignant pustule from inoculation by scratching pimples or abrasions, especially about the face, and in such instances the neighboring lymphatics have become greatly enlarged. The prognosis is bad, and treatment is as yet apparently unsettled. *Post-mortem* investigations show softening of the bronchial glands, and accumulations of fluid in the pleural and peritoneal cavities. The intestines, beyond injection and low inflammatory signs, give no evidence. The glands of Peyer are not softened or ulcerated. Bacillus is abundant in the fluids of the closed cavities, in

the viscera and in the blood. Inoculation of blood containing this form of bacteria in the lower animals, as tested in the mouse, rabbit and guinea-pig, produces the disease, death supervening in from thirty-six to seventy-two hours. Decomposition is rapid, especially at the site of puncture in the case of inoculation. Dr. Blackwood reports two typical cases, occurring in his practice recently.

Tuberculosis and Experiments on Murderers.—There have been established by repeated experiments a large number of facts regarding the infectiousness of tuberculosis. It is known that the disease may be communicated from man to lower animals, and from one of the lower animals to the other. The only point yet left undemonstrated is, whether the tuberculous virus from the lower animals can, under any ordinary conditions, infect man. We have, on the one hand, the fact that one-fifth of all deaths are caused by pulmonary phthisis, with which disease tuberculosis has so close a connection, if not a nearly uniform identity. But besides this great mortality from consumption, there are thousands of deaths annually from tuberculosis of the intestines and meninges. On the other hand, there are three or four million head of cattle in the country. If tubercular disease is as frequent here as in Germany, which we have reason to believe is the case, there must be a vast deal of infected ones from which we are supplied with milk and meat. We know of only one certain way by which the question of its transmission can be settled. That is by making the experiments upon man himself—upon criminals condemned to death. By carefully watching, and after death by necropsy, we may secure results of the highest importance to science and preventive medicine.—Editorial, *Jour. Compar. Med. & Surg.*, January, 1881.

Tracheotomy Without Tubes.—Regarding this new departure in surgery, Dr. Alfred Post writes that his personal experience in tracheotomy, without tubes, according to the method suggested by Dr. H. A. Martin, of Boston, is confined to two cases. In both of these cases, the operations were performed as preliminary measures to facilitate the continued administration of anæsthetics, and to guard against the entrance of blood into the bronchial tubes in protracted and bloody operations involving nasal and buccal cavities. In each instance, the practical result was in the highest degree satisfactory, as compared with the operation as ordina-

rily performed with the introduction of a tracheal tube. The opening into the trachea was larger and more direct, not liable to be clogged with mucus, and unattended with the irritation, which is often occasioned by the presence of the tube. The fauces being distended with a large sponge, having a strong cord attached to it, and hanging out of the mouth, scarcely any blood found its way into the trachea. The small quantity which escaped into the respiratory tube was readily absorbed by a sponge attached to a handle. The apparatus for administering the anæsthetic was applied over the tracheal opening as often and as long as was found to be necessary, and without interfering in any way with the progress of the operation. His experience warrants him in endorsing this method in the highest terms. Where tracheotomy is performed for the relief of obstruction to the introduction of air through the larynx, and where the opening is required to be maintained for a considerable time, it is possible that difficulties may be encountered in maintaining the opening without the tube. Such difficulties, he thinks, may be obviated by carefully attaching the skin to the tracheal opening by a number of fine sutures. He is fully persuaded that the use of the tracheal tube is a source of irritation, and that it is very desirable to dispense with it if the object of the operation can be accomplished without it.—*Annals Anat. & Surg.*, April, 1881.

Injurious Effects from Tea-Drinking.—At the last meeting of the British Medical Association, Dr. Wolf, of Glasgow, described a peculiar disease of the eye in which there is softening of some of its internal structures which become filled with floating dark particles, the presence of which occasion the appearance of spots before the eyes. He had found the disease very common, especially among the mining population, wash-women, and many persons belonging to the upper classes. He has observed it particularly among Australians. He could discover no legitimate cause for the disease in the eye itself, and stated that "it was only on directing his inquiries to their diet, and finding that they all agreed in consuming large quantities of tea, that he came to suspect its agency. A comparison of the numerous cases of opacity of the vitreous humor occurring among tea-drinking populations, with its less frequency in France and Germany, and its rarity among the Turks tended to confirm his suspicion." He attributed the affection to the tannic acid. This precipitated albuminoids from their solutions; hence it probably

acted injuriously by precipitating some of the most important constituents of the food, and also by affecting the mucous membrane of the stomach and alimentary canal, and thus preventing digestion and assimilation. Some observations had been made as to the effect of tea-drinking on healing wounds and ulcers by a Glasgow surgeon, who had noticed that, in persons addicted to this habit, they took on a sort of scorbutic character. Physicians also ascribed numerous cases of rebellious dyspepsia to the use of tea. Dr. Peele, of Sidney, Australia, said that dyspepsia, from this habit, was very common there. Dr. Fothergill expresses the opinion that the great increase in nervousness observable among English women, is very largely due to the use of tea. *Good Health*, December, 1880.

A Cup of Tea.—In a recent lecture by Mr. G. M. Tweedle, of London, on a "cup of tea," the speaker divided his subject into four sections—the tea, the water, the milk, and the sugar. The lecturer first drew attention to tea-drinking in every day life, and showed that the principal components of tea were theine and the essential oil of tannin, which latter possessed astringent properties. He informed the audience that the best time to take tea was about three hours after dinner or any other heavy meal, and deprecated, in the strongest terms the excess to which the drinking is carried on by some people, asserting that such a practice induced a nervous disorganization and impeded digestion. He showed that the sole difference between black and green tea was one of preparation, and that both kinds could be obtained from the leaves of the same plant. After asserting that the adulteration of tea had very much decreased of late years, the lecturer came to the milk, and made the astounding assertion, that in London alone, every year, no less than £70,000 was spent on water, which was sold as milk. He denied the assertion that sugar was injurious to the teeth, bringing forward, as an example, the negroes of Jamaica, who have beautiful teeth and are the greatest sugar eaters in the world.—*Scientific American*, December, 1880.

Treatment of Pelvic Abscess by Abdominal Section and Drainage.—At a meeting some months ago of the Royal Medico-Chirurgical Society, of London, Mr. Lawson Tait advocated performing abdominal section for the purpose of opening and draining the various conditions of suppuration classed as pelvic abscess. In support, he pointed out that many of

these abscesses open into the rectum, bladder, vagina, or amongst the muscles of the abdominal cavity. When such natural openings were established, the patients often died; when recovery took place, it was very tedious. Dr. Tait narrated six cases of abscess, all of which seemed to originate in extra-peritoneal hæmatocele. In none of them could vaginal tapping have been effectual in emptying the abscess and removing the debris of the clots. They were opened through the abdominal cavity, the opening in the abscess cavity being carefully stitched to the opening in the abdominal cavity except in one case, where adhesions had already taken place. Wide glass drainage tubes were first inserted, and then smaller ones of glass, or rubber with wire. In all six cases the abscess closed, and the patients were restored to health in thirty days. From these cases, Mr. Tait concludes that such an operation is neither difficult nor dangerous, and that, by it, recovery is rendered rapid and certain. Mr. Knowsley Thornton said the operation was a great advance in surgery, as other cases of pelvic suppuration had long been unsatisfactory in their results. He had treated two cases on this plan, and was pleased with the results.—(Dr. Gardner.) *Canada Med. & Surg. Journal*, Nov., 1880.

Amblyopia from Disuse.—Dr. E. Williams, of Cincinnati, contributes this paper to the *Cincinnati Lancet and Clinic*, January, 1881. Imperfect vision growing out of long habit of not using the eye, is what is meant by the title of his paper. Whether the functional activity of the eye is voluntarily suppressed, as in strabismus, or necessitated by opacities of the transparent media, as in catarrh, the effect is mainly the same—a cessation of physiological function. Old writers were in the habit of attributing all degrees of imperfect sight connected with corneal opacities or other hinderances to vision, in which no deviation of the position of the organ was present to amblyopia from disuse. Von Graefe was the first to question the propriety of this view and to establish the fact that no optical cause of defective sight, which comes on after the very earliest years of life, and is not attended by strabismus, leads to further weakening of the visual power. The most frequent form of amblyopia from disuse is that of strabismus confined to one eye. Statistics indicate that alternating strabismus is very rare compared with mono-lateral. Every case of strabismus should be relieved as soon as possible. The advice is too often given by the family physician not to have the deformity corrected until the child is older.

The sooner it is done, the more perfect the result in relieving the deformity and the more certain you are to save the vision of the eye from deterioration by disuse. In cataracts, either congenital or occurring in early life, if so far advanced as to require operation, the sooner the cataracts are cured, the better prospect for satisfactory sight. It is just in these circumstances that amblyopia from disuse is so likely to occur.

Clinical Anatomy.—In a lecture delivered before the Anatomical and Surgical Society, Dr. W. W. Keen, of Philadelphia, urges the importance of teaching by using for illustration the live subject, because it comes nearer to the anatomy of the bed-sides. His remarks in this lecture are confined principally to the anatomy of the lower extremities, and especially to the knee and ankle joints. The plan advised and adopted by Dr. Keen is one which must commend itself to every teacher of anatomy, and on the part of all such, as well as students, his paper is entitled to a careful study. After alluding to the fact that few artists or students have a clear cut appreciation of the contour of the knee joint, he calls attention to the fossa on the external condyle for the origin of the popliteus which is best felt in flexion. He attaches no special importance to this point, but compares the surgeon who has all such points in his mind of greater or less import, to the old sailor who knows every little headland, every jutting promontory, and every hidden rock, to such surgeons, diagnosis become easy, and error is infrequent. Passing to the next condyle, he notices the tubercle for the attachment of the tendon for the adductor magnus and thinks the importance of this cannot be exaggerated. First, it is on a level with the upper margin of the trochlear surface for the patella; and secondly, and most important, it marks the line of the epiphysal cartilage. Both in the diagnosis of fractures and other injuries, and especially in resections and other operations at or near the knee, these two points are all important. The long bones grow in length at the epiphysal cartilages, but by no means with equal rapidity at the two ends; and in the femur, it is this lower cartilage that does the bulk of the work. Any interference with it, therefore, before growth is completed (and it is chiefly in childhood and adolescence that resections of the knee are done) must dwarf the corresponding leg and necessitate either lameness or the use of a crutch or high shoe. He reminds us that the synovial membrane of the knee extends about two inches above the upper margin of the patella when

the leg is extended, and is gradually pulled down by the patella, as flexion proceeds until, in extreme flexion, its upper limit is about at the upper border of the trochlear surface. Hence, in all operations near the knee joint, at its upper margin, the incission ought to be made while the knee is in flexion. Besides, the fibres of the vasti muscle which reaches the tibia through the patella and its ligaments, and those whose tension can be felt on each side, go directly to the tibia; and these, together with the tensor vaginæ femoris and gluteus maximus, which reach the tibia through the fascialata, explain why is that, in cases of anchylosis or fracture of the patella, or rupture of its ligament, we, not uncommonly, see a moderate amount of extension still retained. In dropsy of this joint, as this ligament resists the pressure of the fluid so much more firmly than the looser capsular ligament on each side of it, it forms a furrow, flanked by the dropsical swelling. Another effect of any considerable effusion into the joint is the lifting up of the patella, so that it is no longer in contact with the femur. When the knee is straight forward, the foot naturally is slightly everted. The mortising of the astragalus into the inter-malleolar space allows no lateral play to the astrogalus; and this is of value in diagnosticating Pott's fracture of the fibula. But when the fibula is broken three or four inches above the ankle, if you grasp the leg with the left hand at this point, the upper end of the lower fragment approaches the tibia; the lower end, the malleolus, must be tilted outwards, thus widening the internal malleolar space. Seize now the foot, with the right hand, the palm being under the sole, and the thumb and fingers grasping the astrogalus from below; push it sideways towards the fibula; then suddenly shove it sideways towards the tibia, against which it will come with an easily-perceived impact, if fracture exists. He alludes to the possibility of fracture and great impairment of functional use from fracture of the malleoli; and thinks it quite a common thing for a slice of the articular surface to be broken off. It may result through tension on the ligaments. Mr. Callender has named such accidents "sprain fractures." The most prominent tendon just in front of the internal malleolus, and running obliquely to the inside of the foot, is the tibialis anticus; next is the extensor proprius pollicis, and next the tendons of the extensor longus digitorum. Behind the external malleolus, we note the peronei. In a line from the malleolus to the heel, the artery is the middle one of five structures: (1.) The tendon of the tibialis posticus; (2.) The

flexor longus digitorum; (3.) Artery; (4.) Nerve; (5.) Tendon of the flexor longus pollicis. Of all these, the last is most easily felt on passive motion of the great toe, and this, with the midway measurement, from the malleolus to the heel, will give us exactly the position of the artery, and next to it is the nerve. Wyeth has shown that its bifurcation is indicated by a line from the tip of the malleolus to the middle of the heel—an important point in Syms' operation. The bony landmarks conclude the writer's paper, and, from a surgical standpoint, are invaluable.—*Annals Anat. & Surg.*, January, 1881.

Morphia to Prolong and Maintain Effects of Chloroform.—The fact that morphia does not produce and maintain anæsthesia for surgical purposes was first promulgated by Claude Bernard. In the *Practitioner*, December, 1880, Dr. Alex. Crombie, of Edinburgh, contributes some interesting experience with this plan of treatment. The conclusions arrived at by Bernard were to the effect that when a dog has been previously narcotized by morphia, it can be quietly and completely anæsthetized by a much smaller quantity of chloroform than usual; that, under such circumstances, anæsthesia is induced without any initiatory stage of excitement; and that morphia reproduces the anæsthetic effect of a previous dose of chloroform. The conclusions of Dr. Crombie are substantially the same. He finds the anæsthetic effects prolonged and a much smaller quantity of the anæsthetic is required to keep it up. These advantages are most conspicuous in operations about the mouth. The prolongation is often so great as to enable the operator to complete the operation without being interrupted by having to re-apply the anæsthetic. The chief benefit lies, however, in the fact that so small a quantity of chloroform is required to produce anæsthesia after the administration of opium. Since its use, the writer rarely sees vomiting from chloroform, and it is especially indicated in cataract operations. Lastly, but certainly not least, chloroform asphyxia has practically ceased to form a part of his experience. This must be attributed to the small quantity of chloroform required to keep up deep insensibility during the whole time required for all ordinary surgical operations where morphia has been injected under the skin. One drachm often suffices.

Mineral Acids, is the title of a paper by Dr. J. J. Mulheron, of Detroit, Mich. The writer thinks they do not

enter the circulation as acids nor is their therapeutical effect traceable to any modification which they cause of the circulating fluids. They possess little or no systemic action. The improvement which follows their use is due to the tonicity which they impart by their local contact to the glandular apparatus and the lining membrane of the alimentary canal, thus placing the digestive apparatus in a condition to more satisfactorily perform its function. That part of the acid ingested, which unites with the alkaline bases present in the stomach and elsewhere, to form salts, is alone absorbed. That portion which does not thus combine continues its way through the canal exerting its influence until it has spent itself on the lining membranes. They should be strongly diluted and not given for too long a time. It is a physiological law that acids check acid secretions and stimulate alkaline. The converse of this proposition is equally true. The practical bearings of this law are numerous. Sponging with vinegar and water in the perspiration (an acid secretion), or rather transpiration (a mere passive exudation of low fevers, is familiar to all; and the sulphuric acid and quinine mixture of so much service in the sweating of phthisis doubtless owes its value more largely to the acid than to the quinine. In fever the great thirst is due to a dryness of the mouth from a lack of the usual secretions of the salivary glands. Too much water is apt to aggravate the distress by causing anorexia, indigestion, diarrhœa, flatulence, etc. An acidulated bitter mixture will stimulate the secretion of the salivary glands—such secretions being alkaline and accomplish much good. Acids given before meals relieve acidity of the stomach due to hypersecretion of acid. They do this by diminishing the sensibility of the secretory apparatus of the stomach against food, the natural stimulus of this secretion. Many cases of acidity are due to too little acid. An amount of acid is necessary to digestion—the albuminous constituents of food especially requiring it. When the acid is not present in sufficient quantity, fermentation leading to the formation of acid (butyric especially) results. We have, then, in acids a remedy for acidity due to either cause. If due to too much acid secreted by the stomach, the acid must be given after the meal. When we have a deficiency in the acid secretion, the pyrosis which occurs immediately or soon after a meal, has not the sour taste characteristic of the pyrosis accompanying hypersecretion; the acidity in the former case, being due to fermentation, comes on much later than in the latter. In deficiency

of the acid secretion, we are also likely to have eructations of disagreeable gasses having the taste and smell of rotten eggs (sulphuretted hydrogen), depression of spirits and oxalic acid in the urine. When this latter condition is found, nitric acid most effectually meets the indication. It is generally a good practice to combine bitter tonics with the acids in the treatment of dyspepsia. Another mode of action of acids is by irritating the outlet of a duct; it stimulates the secretion of the gland from which the duct leads. This physiological fact explains the action of a saline cathartic in exciting the flow of bile; an irritant the flow of saliva and tears, etc. This is accomplished through reflex action.—*Therapeutic Gazette*, November, 1880.

Importance of Early and Persistent Treatment of Insane.—The following conclusions, taken from the report of the Pennsylvania Hospital for the Insane, are worthy of consideration. Nothing is better established, in regard to insanity, than that its curability is, in a very great measure, dependent upon its being subjected to proper treatment in the early stages of the disease. While all who are insane do not require a removal from home, it is unquestionable that such a course is best for a large majority of all cases that occur; and it has been found by very extended observations, that most of them do better, and recover more promptly in well-conducted institutions than in any other position in which they can be placed. Before removal from home, there should be no doubt of the character of the mental disturbance, and that it is really insanity, and not the delirium connected with some other form of disease. Those greatly prostrated should not be removed, as a short stay at home to recruit strength often results in permanent good, and should the change be fatal, the patient's last moments will have been passed among friends in his own home. It is no less important that treatment should be persevered in until the recovery is complete beyond all question. Too often relapses occur where patients have improved to that extent when continued treatment will ensure continued improvement. The unavoidable desire of the officers of an institution to see their patients return to their families, and the anxiety of families and patients to secure the same object, are hard to, but should be resisted—it being far better to keep them too long than too short a time.

Cold and Quinine in Fever.—Hydrotherapy in fever has been vindicated by its succesful application in hundreds of cases. It is stated that vinegar and water will reduce temperature more rapidly than simple water. Jaccoud applies cold water in the following manner: Beneath the sheet on which the patient rests is drawn an oil-cloth to protect the mattress; then is prepared a bucketful of vinegar and water at a temperature ten to twenty degrees less than that of the patient; this mixture is placed near at hand, and a sponge saturated with it is then squeezed so as to discharge the fluid along the whole length of the patient's body. The fluid is conducted by the oil-cloth to a bucket, whence it may be used again and again. The wet sheet is now raised so as to envelop the body of the patient, and its refrigerant action may be increased by fanning the surface of the sheet as it lies on the patient's body. Compresses wrung out of cold water, bladders filled with ice, ice compresses as recommended by Niemeyer, and ice poultices may be used. Cold affusion to the head and body in hyperpyrexias have been successfully used in rheumatism, scarlatina, typhus and typhoid, and recently the use of cold applications or ice poultices has been recommended in acute pulmonary phthisis. There are two conditions of the skin in high fever. The skin may be hot and dry, and parting with its heat slowly; or it may be moist, and yet the heat continue high. The first should be treated by agents like antimony, ipecac, aconite or veratrum, because they diminish vascular spasm at the surface and allow the blood to flow more freely to the surface and come under the cooling influence of the air. The second class of cases yields promptly to quinine, which acts as a poison to the growing bioplasm, limits the oxidation of tissue, and prevents the continuance of the heat-producing combustion. Quinine is undoubtedly entitled to the first place in this class of antipyretics. It diminishes the absorption of oxygen by tissues, and thus diminishes oxidation. This action extends alike to red and white corpuscles. The absence of oxygen causes the white corpuscles to stand still. It has been stated that one grain of quinine, dissolved in seven thousand grains of water, will arrest the movement of white corpuscles. It arrests their growth for the time—"paralyzes the bioplasm." This will arrest the evolution of heat. The writer has time and again administered jaborandi in fevers, with the effect of producing a profuse diaphoresis, without reducing the temperature. The sweating of jaborandi, says Philips, "is apparently not due to increased afflux of blood to the sur-

face, but rather to a paralysis of the inhibitory influence of that portion of the nervous system which presides over the sudatory apparatus. Quinine is so rapidly eliminated as to render it almost impossible to poison a man with it. The writer introduces statements from various authors who think little of the injurious effects of quinine. The evidence tends to show that the most dangerous enemy to the heart is high temperature; and it is the high temperature, and not the quinine, which is said to effect that organ injuriously. In rheumatism, with hyperpyrexia, quinine is invaluable. By its use in malaria, we overwhelm the fever rather than cure some mysterious periodic condition. Its sole use in periodic fevers is an antipyretic one.—Dr. D. N. Kinsman, of Columbus, Ohio, in *Ohio Med. Record*, January, 1881.

Varieties of Cancer of the Rectum.—Dr. Charles B. Kelsey, of New York, thinks that cancer of the rectum, like cancer elsewhere in the body, generally occurs in middle life or during old age. A few cases of its occurrence in youths are recorded. He has found in a collection of one hundred and seven cases, fifty in males and fifty-seven in females. Quain says, and the writer agrees with him, "I have most frequently met with the lower margin of the deposit at the distance of from two to three inches above the orifice of the bowel. The part between that just indicated and the anus is next in order of frequency, and to this succeeds the lower end of the colon." The upper limit of the rectum, where it joins the sigmoid flexure, is a common site of the disease, and here it runs a more rapid course than elsewhere, and is more apt to be suddenly fatal on account of the increased liability to obstruction which the anatomical condition favors. Clinically, he divides cancers into the hard and soft. The latter break down, cause great ulceration and destruction of tissue, bleed, discharge, and in this way give rise to a certain set of symptoms; the former causes induration and contraction. The most frequent variety met with is epithelioma (twenty-one out of thirty-four cases). There are two forms of epithelioma, distinguishable with the microscope and clinically. The first (cancroid, lobulated epithelioma) contains the characteristic onion-like nests of squamous epithelium. It has its point of origin at the anus, and not within the rectum, and begins as a hard, dry, warty nodule. It is slow in progress, covered at first with firm epidermis, and ulcerates late. It seldom spreads far up the rectum, but tends rather to involve the integument. The other variety

(the cylindrical epithelioma) springs from the mucous membrane of the rectum, above the sphincter. It is easily distinguished from the former, but not so easily from a scirrhus which has begun to ulcerate. It is softer than the other, more vascular, and therefore more prone to bleed and undergo extensive degeneration and ulceration; and it rapidly infiltrates surrounding tissues. Next to epithelioma, scirrhus is most common. It does not, like the epithelial, arise in the mucous membrane, but in the sub-mucous connective tissue. In the early stages of its growth, the mucous membrane is normal and movable over the growth. It cuts like raw potato, and has projections or claws, from which cancer takes its name. It sloughs, breaks down and extends rapidly, and is said to be found most frequently on the anterior wall of the rectum, near the prostate, and to increase most on the side of the chief arterial supply. Encephaloid has its primary seat in the glandular tissue of the mucous membrane. It is enclosed in a capsule of connective tissue, and is divided into lobules. They are rapid in their increase, and may fill the pelvis. Fluctuation is often distinct; but the diagnosis is easily settled by aspiration. In colloid cancer (alveolar sarcoma), the structure is essentially the same as in the last variety, except that the alveolar meshes are filled with a mucous, glue-like material, which in its most natural state is glistening, translucent and pale-yellow. It infiltrates rapidly, and has a tendency to undergo cystic degeneration. Its malignancy varies—some of them being comparatively benign, and do not always return. Melanotic carcinoma, or black cancer, according to some, is a true cancer; according to others, a sarcoma. Clinically, it is a very malignant growth, running a very rapid course. Either a carcoma or a carcinoma in any part of the body become ossified, and hence pathologists speak of osteo-sarcoma and osteo-carcinoma; but one such case of the rectum is recorded. The diagnosis of cancer is treated of fully, and the paper merits a more extensive notice than is here given it. It is published in the *New York Med. Jour.*, April, 1881.

Food Adulteration.—Dr. Charles Smart, U. S. A., in the *National Board of Health Bulletin*, January 1st, 1881, submits a report of interest on this subject, prepared by instructions from the National Board of Health. The first adulterated article of food alluded to is tea. Of 109 teas examined, 90 were obtained from sources which should have furnished a pure article, while 19 were obtained from questionable

sources. The results of thorough examinations permits the committee to report that they think tea adulteration is not carried to any very great extent. In England, the chief adulteration of coffee is chicory. Dr. Hassall testified before the Food Commission, in 1855, that of 34 samples which he had examined, 31 contained chicory. Normandy found as much as 75 per cent. of chicory. Roasted wheat, beans, rye and potato flours, mangel-wurzel and a substance resembling acorns, roasted corn, and ground cocoa-ribs, while as adulterations of the chicory were found deal and mahogany sawdust, carrots, Venetian red and burnt sugar. The reporter pertinently remarks that while in this country we have the credit of making wooden nutmegs, we have never been accused of manufacturing coffee beans from compressed chicory. In England, sand in sugar is a familiar phrase. Most of the sugar there examined was dark in color, mixed with much vegetable extractive, and swarming with sugar-mite. The sugar of the present day is purer. The report concludes that manufacturers of flour do not to any great extent doctor the flour, but that bakers do. Corn meal, bicarbonate of soda, cream of tartar, baking powders, black pepper, pickles, confectionery, and other common household agents, were noticed, and a detail of the method of examining them. It is a useful report.

Strychnia and Whiskey Hypodermically in Chloroform-Poisoning.—Dr. W. P. Nicolson, of Atlanta, Ga., reports in the *Southern Medical Record*, November, 1880, the case of a woman who took at once one ounce of chloroform. When seen some hours afterwards by Dr. Nicolson, there was profound narcosis, with stertorous breathing; the cheeks and face were pallid and cold; there was entire loss of sensibility of the conjunctiva—the eyes remaining opened or shut according as they were left. After caffeine hypodermically had been used without effect, she was given hypodermically carbonate of ammonia, grs. ij, in whiskey ℥j, and strychnia sulphate gr. $\frac{1}{45}$. In about ten or fifteen minutes she moved her head and coughed, and expelled a quantity of mucus from her mouth, which had threatened to suffocate her. In about half an hour, half of the above dose—of whiskey and ammonia and the same amount of strychnia—were given; after which she rested quietly until morning, only occasionally being interrupted by vomiting. Her recovery was continuous. The points of interest were, the quantity of chloroform taken, the length of time before narcotic symptoms appeared, and the prompt action of the ammonia, strychnia and whiskey.

Book Notices, &c.

Hand-Book of Chemical Physiology and Pathology, with Lectures upon Normal and Abnormal Urine. By VICTOR C. VAUGHAN, M. D., Ph. D., Lecturer on Medical Chemistry, University of Michigan, etc. Third Edition, Revised and Enlarged. Ann Arbor: Ann Arbor Printing and Publishing Co. 1880. 8vo. Pp. 351—32 pages of Plates. (From Publishers.)

This is a useful chemical work to practitioners, who, still remembering the general principles of chemistry, have forgotten the exact language of the schools as to nomenclature, formulæ, the composition of tissues, secretions, etc. To the medical jurist, the book is of special value. An excellent table to facilitate "Examination of the Urine Suspected to be Abnormal," is incorporated in the text. There is also a chapter devoted to the "Detection of Medicinal Substances in the Urine," such as morphia, strychnia, veratria, atropia, santonin, iodine, bromine, arsenic, antimony and mercury. A *Part II* is appended, which contains the plates, giving drawings of the microscopic appearances of the various secretions of the body in disease as well as in health, etc. The popularity of the work may be estimated by the demand for this Third Edition in scarcely more than two years after the issue of the First Edition.

Hygiene and Treatment of Catarrh. Part I. Hygienic and Sanative Measures. Part II. Therapeutic Measures. With Forty Illustrations. By THOS. F. RUMBOLD, M. D., St. Louis: Geo. O Rumbold & Co. 1881. 12mo. Pp. 473. (From Publishers.)

The special reputation which Dr. Rumbold has made as an authority in the class of diseases represented in the title of this book, gives prominence to anything he may have to say relating thereto. In this book accurate clinical descriptions are given of the forms of catarrh as it may attack the nose, throat or ears. The chapters on hygienic and sanative measures are full of detail, and the measures are urged with an earnestness of one who believes what he recommends. We have not the space to discuss many matters presented by the author, such as his method of making local applications by means of the spray producer alone, the discontinuance of the use of the Eustachian catheter, the demonstration that air continuously entered the middle ear, as also that the air in this cavity was always in a rarefied condition, etc. The

whole effort of Dr. Rumbold seems to have been to correct some errors which are still published in standard authoritative works and to present the profession with a truly useful book; and he has eminently succeeded.

Manual of the Practice of Medicine. By HENRY C. MOIR, M. D. New York: Steam Press of the Industrial School, H. O. A. 1881. 12mo. Pp. 455. Cloth. Price, $2.50.

To indicate the scope of this book, we copy a sentence from the Preface: It "comprises the substance of a course given by a well-known instructor to his private students as a preparation chiefly for competitive examination, and embraces also a careful resumé of the standard works." The author very earnestly and properly insists that the practitioner should be familiar with the *causes* of every prominent symptom of disease, and thus be able to exclude, from the list of causes of each symptom *such as are not sustained* by other points in the history. The arrangement of the work consists in giving (1) the general basis on which the symptoms of disease are divided; (2) *all* the diseases which may be met with in each of the various organs or tissues; (3) the *more important symptoms* of disease and their etiology; and (4) the *special* points pertaining to the diagnosis and prognosis of individual forms of disease. Reliable and valuable prescriptions are appended to the volume. In a word, this is a most useful manual for *practitioners* as well as for students.

Hernia: Strangulated and Reducible, with Cure by Subcutaneous Injections, together with Suggested and Improved Methods for Kelotomy. Also an Appendix, giving a Short Account of Various New Surgical Instruments. By JOSEPH H. WARREN, M. D., Member American Medical Association and Delegate to Foreign Countries for 1880–1, etc. With illustrations. Boston: Charles N. Thomas. London: Sampson, Low, Marston, Searle and Rivington. 1881. 8vo. Pp. 280. (From American Publishers.)

The author of this book has gained for himself an enviable professional distinction, in that he is an accurate observer, a careful student and an original contributor of many valuable suggestions to practitioners, and the devisor of useful instruments and appliances. But his most worthy contributions to the art of medicine relate to the subject indicated by the title of the treatise before us. This work, in addition to giving a short sketch of the various operations by other authors for the cure of hernia that are most worthy of mention—such

as those of Wood, Dowell, etc.—advocates especially a treatment by subcutaneous injections of infusion of white oak bark—modifications of the late Prof. Joseph Parcoast's operation. These injections are thrown into the tissues composing the hernial ring, after thorough reduction, of course, of the hernia; and by their sufficiently stimulant effect, adhesive inflammation sets up which closes the opening. Full credits are given to Heaton and others for their several suggestions. Our want of space will not allow us to go more into detail. The operations by various authors for strangulated hernia are thorougly reviewed, and the author's valuable modification of the operation of kelotomy is tersely but clearly stated. Dr. Warren also takes advantage of this publication to present many new instruments of his own devising. We can only add that this work, while the most recent, is also practically the most valuable contribution to the subject of hernia that we now have. Every surgeon should have the book.

Manual of Diseases of the Throat and Nose. By FRANK HUNTINGTON BOSWORTH, A. M., M. D., Lecturer on Diseases of the Throa. in Bellevue Hospital Medical College, etc. New York: William Wood & Co. 1881. 8vo. Pp. 427—xx. (From Publishers.)

The author herein records his "observed results of treatment in something over 8,000 cases"—mainly cases at the Bellevue clinic for diseases of the throat. He does not claim that this is a complete treatise on the subject of which it treats, but that it does describe those affections met with in ordinary practice; and he has purposely omitted a consideration of diphtheria and the throat manifestations of the exanthemata. These latter omissions, we cannot agree with the author, in thinking should have been made; since, generally, works on general medicine refer to the teachings of those who limit their practice to nasal and throat and other like diseases for tuition regarding the *local* manifestations of general diseases. According to the author's views, in reference to the above named affections, he should not have dwelt at such length as he has on laryngeal *phthisis*, which is but the localization of a general or systemic disease. On the same principle, he ought to have omitted the excellent section he has given on *malignant* tumors of the larnyx, the various *syphilitic* troubles of the throat and nose, etc. A treatise pertaining to diseases of any special organs or tissues, should contain descriptions, as far as possible, of *all* the diseases which may affect the parts of which the work

treats. But in making these adverse criticisms, we would do the book, the author and ourselves, injustice, not to add that what the author has written is of great value as involving true clinical experience. The only objection to the book we have is simply and solely that it is not sufficiently complete to enable us to recommend it as the library book of the *ordinary* practitioner.

Treatise on the Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine. By AUSTIN FLINT, M. D., Professor Principles and Practice of Medicine, and of Clinical Medicine in Bellevue Hospital Medical College, etc. Fifth Edition. Revised and Largely Re-written. Philadelphia: Henry C. Lea's Son & Co. 1881. 8vo. Pp. 1150. (For sale by Messrs. West, Johnston & Co., Richmond.)

As we compare the present edition with the former, published in 1878, we are impressed by the reflection that advances in the science of the Practice of Medicine have been rapid and many within the few years. In fact, so many eliminations, substitutions and additions were found necessary in the preparation of this fifth edition, that it is essentially a new work. It is, of course, perfectly impossible to review a book of such scope as this within the space of the few lines at our command. So that we satisfy ourselves with a simple notice that a new edition of this almost invaluable book to every medical practitioner is just issued; and as authoritative as may have been the contents of the former editions, what is now published is even more authoritative, more practical in the chapters on treatment of diseases, and is in every respect to be regarded as *the* American authority on Practice of Medicine.

The publishers issue this also in half Russia, as they are now doing in regard to all of their standard works.

Manual for the Practice of Surgery. By THOMAS BRYANT, F. R. C. S., Surgeon to, and Lecturer on Surgery at, Guy's Hospital, etc. Third Revised and Enlarged English Edition. Edited and Enlarged for the Use of the American Student and Practitioner. By JOHN B. ROBERTS, A. M., M. D., Lectruer on Anatomy and on Operative Surgery in Philadelphia School of Anatomy, etc. With 735 Illustrations. Philadelphia: Henry C. Lea's Son & Co. 1881. Imperial 8vo. Pp. 1005. (For sale by Messrs. West, Johnston & Co., Richmond.)

"*Bryant's Surgery* is now the text or reference book in many of the medical colleges of this country; and there is no practical surgeon who does not recognize its high authority. As compared with the Second American Edition,

issued not two years ago and already exhausted, this Third Edition is much to be preferred in that this is a *thorough* revision of the Second; and, notwithstanding the effort at conciseness, it contains about sixty more pages of material. The American Editor has added greatly to the value of the work by his annotations and additions—without, in the least, abridging any of the London edition; and hence this American is to be preferred to the original publication of the author. As every inch of our space in this number is to be economized to the greatest extent, we have only to add, in reference to the value of the book before us, that no general practitioner should be without it. It is the best of all the one volume works on surgery of recent date for the ordinary surgeon—containing enough of pathology, accurate description of surgical diseases and injuries, well-devised plans of treatment, etc., to make the surgeon who follows the text successful in his diagnosis and treatment in any case in which success can be secured, according to the present state of the surgical art. The book, as sent us, is handsomely issued by the popular and courteous publishers. As one of the standard publications of this excellent Publishing House, *Bryant's Surgery* is one of the series of volumes which is bound in half Russia, the prices for which tasteful and durable bindings "have been fixed at so small an advance over the cost of sheep as to place it within the means of all to possess a library that shall have attraction for the eye as for the mind of the reading practitioner." The typography is beautiful also.

The Heart and its Functions. New York: D. Appleton & Co. 1881. 16mo. Pp. 95. Price, 40 cents. (For sale by Carlton McCarthy, Richmond.)

This is one of the popular and useful *Health Primers* which are being written by eminent and well qualified professional men for circulation among the people. The special author of this *Primer* is not stated. But whoever wrote it, wrote a capital book for general circulation. This series of *Health Primers* is edited by distinguished London practitioners.

Annual Report of the Operations of the United States Life-Saving Service, for the year ending June, 1880. Sumner J. Kimball, General Superintendent, Washington, D. C.

The above report, published by the Government, has an interest that does not always attach to the publications of the Treasury Department. The Life-Saving Service has be-

come a Department of the Government as distinct as the Navy, and its heroic services make a record not less glorious than that of the achievements of the navies of the world.

Aids to Diagnosis. Part I. Semeiology. By J. MILNER FOTHERGILL. New York: G. P. Putnam's Sons. 1881. 16mo. Pp. 75.

Aids to Diagnosis. Part II. Physical. By J. C. THOROWGOOD, M. D., M. R. C. P. New York: G. P. Putnam's Sons. 1881. 16mo. Pp. 61. Price, per Part: Paper, 25 cents; Cloth, 50 cents. (For sale by Messrs. West, Johnston & Co., Richmond.)

The energetic publishers are issuing what is entitled the "Student' Aid Series." These two little volumes belong to that series. While not exhaustive in their scope, these two books, together, are very serviceable at the bedside as "*aids* to diagnosis" in general. Since such books are more usually needed for reference than for close reading, they should always be well indexed. No index is found with the two neat and otherwise useful pocket-books before us.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice; but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Management of Infantile Eczema. By L. DUNCAN BULKLEY, A. M., M. D., New York, N. Y. 8vo. Pp. 15. (From *Transactions of Medical Society, State of New York*, 1880.)

Use of Sulphur and its Compounds in Diseases of the Skin. By same. 8vo. Pp. 10. (From *Arch. Dermat.*, July, 1880.)

Dangers Incident to the Simplest Uterine Manipulations and Operations. By GEO. J. ENGELMANN, M. D., St. Louis, Mo. 8vo. Pp. 35. (From *Transactions Missouri State Medical Society*, 1880.)

Some of the Errors in the Diagnosis of Eye Diseases, into which General Practitioners are Most Apt to Fall. By SAMUEL THEOBALD, M. D., Baltimore, Md. 8vo. Pp. 6. (From *Maryland Medical Journal*, December 15, 1880.)

Suppression of Syphilis. By J. TYLER KENT, M. D., St. Louis, Mo. 8vo. Pp. 16.

Enumeration, Classification and Causation of Idiocy. By ISAAC N. KERLIN, M. D, Media, Pa. 8vo. Pp. 32. (From *Transactions Medical Society, Pennsylvania*, 1880.)

Higher Education of Medical Men, and its Influence on the Profession and Public. By F. D. LENTE, A. M., M. D. 8vo. Pp. 16.

Editorial.

The Business Office of the Daily Edition of the Virginia Medical Monthly, during the week in which the American Medical Association will be in session in this city, May 2nd–7th inclusive, will be in the Piedmont and Arlington Building—entrance on Ninth street, door nearest Main street.

The Ontario Medical Act.—Many of our subscribers have been interested in the letters from Dr. Philip Carroll, of Simcoe, Canada, in regard to the prohibitory laws regarding the practice of American practitioners in Canada. While we had every confidence in the statement of Dr. Carroll, as he understood the facts, in the December, 1880, and February, 1881, numbers, we were still anxious to hear the other side; and hence we most cheerfully admitted to our March No., 1881, the letter of Dr. C. Sinclair, of Ayline, Ontario, which undertakes to defend the Ontario Act. We have taken some pains to inqutre into the merits of this controversy; and while Dr. Carroll may be at fault in some minor details, so far as our investigation has been carried, we find that he is right in the main general proposition he laid down in our December No., 1881. It may be that the Ontario Medical Act was not intended by the law-making powers of any part of the Dominion of Canada in passing this act, as legislating against regular graduates of the regular medical colleges of the United States. But let any one examine the act itself; who else is it specially applicable to, if not to the usual graduates of the American schools? It is well known that but few, if any of the Continental colleges, allow of graduation in medicine under four, five, six or even seven years of student's life; whereas none of the United States colleges require over three years of students' life to become graduates in medicine. An American graduate, if we understand the Ontario Act aright, is to make "his education equivalent to that required of our own graduates [referring to graduates in Canadian schools] passing the same matriculation, and attend the same number of six months' winter courses of lectures." Hence the American graduate, at the end of his three years' of *college* study, of four and a half to five months, plus the period and assiduousness of his study at home during the remainder of each of the three years, cannot enter upon the practice of medicine—whatever his

attainments—in Canada, unless he attends a fourth year in some Canada school. Such a law as this would require some of the leading medical lights of the world to go to school again. Think of the force of the law, as stated. Think of Marion Sims, the father of Gynæcology, sitting *as a student* in the class of the Professor of Gynæcology in any of the Canadian Schools of Medicine! Think of Dr. Robert Battey as being in the same class, whose great discoveries, in the line of diseases of women, have never been equalled by any Canadian, and are as yet adopted but by few in that Dominion. And there is Thomas, whose standard work on "Diseases of Women,', is used as a text-book in the Dominion schools; and yet he, according to the Canadian law at present, would have to pass a fourth year of collegiate study in Canada in order to enter into practice. The same might be said of Barker, Emmet, Goodell, Engelman, Storer, and many others in this special line of practice. Then there are Flint, Sr., Loomis, and others of equal rank in Physical Diagnosis, than whom Canada cannot present superiors, if indeed their equals. Where stands the immortalized Sayre in the face of the Canadian law, if one wishes to seek out *the* authority on Orthopædic Surgery? If one turns to the authority on the latest and greatest discovery on the removal of stone from the bladder, who in Canada or elsewhere has done what Bigelow has done? After excluding Foster, who has been an equal in Physiology to Draper, Dalton, Flint, Jr.? In Chemistry, there is no superior in any of the Canadian colleges to the general run of Professors of Chemistry in any of the usually recognized regular medical colleges of the United States. In the preparation or knowledge of the articles of the materia medica who is the equal of Dr. E. R. Squibb, or Prof. Maisch; or who in Therapeutics, in Canada, can be compared to Drs. Alfred Stillé and Roberts Bartholow? As regards nervous diseases, who are recognized as higher authority in Canada than Drs. Hammond, Hamilton, Mitchell, Bauday? In general Physiology, as well as regards numerous Surgical and Gynæcological suggestions and practices, who can Canadian practitioners place as the *confrére* of Dr. Henry F. Campbell? In the specialty of Ear and Eye diseases, who are the superiors, in Canada, of Drs. Noyes, Turnbull, Chisolm, Calhoun, Dudley? Turning to general operative and inventive surgeons, we know of none in Canada that are even the equals of Drs. Jas. R. Wood, Samuel D. Gross, Hunter McGuire, T. G. Richardson. We have been cautious to name only those practitioners of the United

States who are now living and who are not apt to go to Canada to practice medicine. And this hurried selection of medical authorities in the "States"—without reference to many others of almost, if not equally recognized renown,—who cannot practise in Canada, under the present law, is presented simply to show how ridiculous is the Canadian law, which, at least, technically, prevents more regular doctors of the "States" from practising in Canada.

We have purposely avoided reference to the many illustrious gentlemen who live in the "States" bordering on Canada; for we do not wish to involve any of them in personal controversies regarding the decision of a principle in which they are specially interested, but which does not affect practitioners residing in this section of the United States. Scarcely a Southerner of this section of country, with its genial sunshine, remarkable healthfulness, freedom from climatic epidemics, etc., feels inclined to settle in so far a northern climate as Canada, where the winter season is long and dreary and cold, and where the spring, summer and autumnal seasons are short, and where the markets are not abundant in the vegetables and fruits that grow almost in profusion in the section of country extending from Pennsylvania, and its isothermal line, southward, almost to the Gulf of Mexico. Hence, we feel that we can view this subject dispassionately; and without intending offence, either to the doctors of Canada or the bordering "States," especially in the Northwest, we feel that we can look upon this subject without self-interest.

The "Ontario Act" may not be quite so severe as understood by Dr. Carroll; and it may be a true service to the profession and public of Ontairo; and it may even be that *certain* doctors in Michigan, Wisconsin, and other bordering States have, *generally*, approved of the Ontario laws. But why cannot doctors in Detroit, Chicago, and other cities of the "States," almost bordering on Canada, pass over the "Lakes," or the dividing rivers, to see their special patients, who may prefer to make a temporary home in Canada, without being threatened with the penalties of the "Ontario Medical Act?" We have seen, through some of the city newspapers, as well as in the columns of some of our most reliable exchanges of the Northwest, that doctors of the United States have been arrested, and even threatened with the letter of the law of Canada on this subject, if the professional visits are again repeated to Canada. *Perhaps* there have been arrests of American practitioners who have gone

over the lines to see some of their personal patients. We leave this statement to be more definitely affirmed or denied by those practitioners of the United States who have prescribed for their own family patients who may have been in Canada.

It is furthest from our object to raise a ground of National preferment as regards the medical profession of Canada and the United States. While there may be some "States" which have special State laws on the subject of medical practice, we are yet to hear of any of them which have the strictest laws on the subject, that has attempted to prohibit any recognized practitioner of Canada from calling professionally on his patient in Canada, Europe, Mexico, South America, or elsewhere.

From the correspondence we have had with doctors of the United States, and which we have seen from Canadians, we are free to say we do not believe any *intentional* discourtesy has been done the regular graduates of the recognized Medical Colleges of the United States by the *regular* practitioners of the Dominion. Yet, while this may be so, in view of all the evidence we have in hand, we still think there are National professional courtesies between Canada, as well as Mexico, and the United States—courtesies of a character which we have tried to indicate—which should always be observed. If any well recognized Canadian or Mexican practitioner of medicine comes to the United States to see a patient—whether he be called in consultation or to attend a patient, let the courtesy be extended of allowing that recognized practitioner to come. Or if the summons of similar character be sent a regularly recognized practitioner of the United States, to go to either of the classes of patients in either of these different countries, let him be accorded the courtesies of the *medical profession*, at large, throughout the civilized world, without arrest, or even the threatening of arrest by the courts, the police, or any member of the profession.

If such indignities as have, on several occasions been offered "regular doctors" of the United States, are persisted in, it will become proper for the Congress of the United States to enact some self-protective law in the premises. We trust the occasional for such a Congressional enactment will never occur.

Massachusetts Color-Blind Law.—Through the energetic efforts of Dr. B. Joy Jeffries, of Boston, and a few others, the

Legislature of Massachusetts has been, very properly, persuaded to pass an "Act relative to the Employment by Railroad Companies of Persons affected with Defective Sight or Color-Blindness," which is incorporated in Chapter 194 of the State Code, as follows:

"SEC. 1. No railroad company shall employ or keep in its employment any person in a position which requires him to distinguish form or color signals, unless such person, within two years next preceding has been examined for color-blindness or other defective sight, by some competent person employed and paid by the railroad company, and has received a certificate that he is not disqualified for such position by color-blindness or other defective sight. Every railroad company shall require such employé to be re-examined at least once within every two years, at the expense of the railroad company.

"SEC. 2. A railroad company shall be liable to a fine of one hundred dollars for each violation of the preceding section.

"SEC. 3. This act shall take effect on the first day of July next. [*Approved April* 11, 1881, *Boston, Massachusetts.*]"

The American Surgical Society will convene in the Hall of the House of Delegates, Capitol Building, at 6 P. M., Thursday, May 5th, 1881, during the session of the American Medical Association in Richmond. Dr. Samuel D. Gross, of Philadelphia, is President of this Society, and we understand the approaching session of the said Society will be of great interest to those who are devoting themselves to surgical practice. We are informed that, according to the plan of organization of this Society, no one who *limits* his practice to surgery can be a member.

Hygeia Hotel, Old Point Comfort.—For many years this point has been a popular summer resort—none so popular in all the South. Of late years, Mr. Phœbus has added so largely to the attractions of his splendid hotel, that now it would be difficult in all the country to find more comforts in summer or winter, at any place, than at his hotel. Its seaside situation has a marked and well-known effect upon the climate—lessening the vigors of winter, whilst in the summer months, the alternate land and sea breezes modify the heat, rendering the days and nights sufficiently cool for exercise and comfortable sleep. The health or pleasure seeker cannot find a more excellent resort than the "Hygeia."

The Medical Aid Association, through its ardent advocate, Dr. Frederick Horner, Jr., of Fauquier county, Virginia, will probably be a subject of interest to be brought before the Session of the American Medical Association in this city. The general idea is good, and is approved by such a prominent journal as the *Medical and Surgical Reporter*, of Philadelphia. We are also informed that Dr. S. W. Gross will give his cordial support to the proposition. The "Medical Aid Association" is designed to be a sort of insurance feature, connected with the American Medical Association. The suggestion is worthy of consideration.

The New York Medical Abstract is a new monthly journal of condensed medical news from a full list of exchanges. It was begun in January, 1881, at the remarkable low price of $1 a year or ten cents a copy. Address New York city postoffice box 1860. It is cheerfully commended and placed with pleasure upon our exchange list.

The Association of American Medical Editors will meet in this city on Monday evening, May 2nd, 1881.

Obituary Record.

Dr. E. A. Kunkler recently died at home in Placerville, Cal., at an advanced age. He was a correspondent to the California State Board of Health, and made numerous valuable contributions to the medical journals of his section.

Dr. Isaac Ray died at his home in Philadelphia, Pa., March 31, 1881, at the age of 74 years. As an authority in all that pertains to mental pathology, and in the care for and treatment of the insane, he has a world-wide reputation.

Dr. Max. Herzog died in New York city on April 5th, at the age of 51. He studied medicine at Munich and Würzburg, and went to New York in 1853, where he has since lived. He was one of the founders of the German Hospital, was attending physician to this and Mount Sinai Hospital, and was a member of many medical societies in that city.

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RICHMOND, JUNE, 1881.

Proceedings of Societies.

AMERICAN MEDICAL ASSOCIATION.

GENERAL SESSION.

First Day—Tuesday, *May 3rd*, 1881.—The Association was called to order at 11 A. M., in Mozart Hall, Richmond, Va., by Dr. F. D. Cunningham, Chairman of the Committee of Arrangements. Dr. Henry D. Holton, Brattleboro', Vt., one of the Vice-Presidents, occupied the chair by request of the President; Dr. Wm. B. Atkinson, Philadelphia, Pa., Secretary, was at his post.

After prayer by Right Rev. Bishop J. J. Keane, of the Catholic Church, Dr. Cunningham introduced Gov. F. W. M. Holladay, who delivered the Address of Welcome.

The Secretary called the roll of all those who had registered, and, on motion of Dr. J. M. Toner, of Washington, D. C., all were confirmed in their membership.

On motion of Dr. W. Brodie, Detroit, Mich., the ex-Presidents were escorted to seats on the platform.

Dr. Cunningham read invitations from the Commercial, Richmond and Westmoreland Clubs tendering the hospitalities of these Clubs to the members during the session of the Association. The invitations were accepted, and, on motion of Dr. D. J. Roberts, Nashville, Tenn., the thanks of the Association were voted for the same.

After hearing the report of the Committee of Arrangements, the Secretary read letters of regret for non-attendance from ex-Presidents J. Marion Sims, of New York, and W. O. Baldwin, of Alabama; Vice-Presidents W. H. Anderson, of Alabama, H. Carpenter, of Oregon, and Dr. F. Pratt, of Michigan, member of the Judicial Council.

At 12 o'clock M., Vice-President Holton introduced Dr. John T. Hodgen, of St. Louis, the President of the Association, who proceeded to deliver the annual *President's Address.* He alluded to the progress in medicine, and then proceeded to bestow a passing glance upon some of the causes which militate against the success of the surgeon by sometimes betraying him into error; again embarrassing him in his choice between conflicting plans of treatment, and too often frustrating his best directed efforts.

He divided surgeons into those seeking to perform every practicable operation, and the other, avoiding operations whenever it is possible. The former include the bold, the enterprising, the ambitious and the reckless of our profession. The other, the timid, the conservative, the cautious and the procrastinating. The former class is largely made up of young men—enthusiastic and full of inspiration, caught from professors whose task is to make the way clear and easy, students of the current medical literature, which teems with new suggestions and is crowded with reports of remarkable cases and wonderful operations, generally ending, or reported as ending, happily to the patient and to the great credit of the reporter.

Simon excises a kidney, turns an aberrant ureter into the rectum, touches, through the natural passages, a stone in the kidney; and immediately hundreds of ambitious surgeons are seeking kidneys to excise, ureters to turn, and renal calculi to touch. Battey removes an ovary for the relief of an obscure nervous disorder; and forthwith ovaries are removed for almost every imaginable nervous disorder. Billroth cuts out a cancerous larynx, or a diseased pylorus; and at once a demand springs up for similar cases, and the daring operations are repeated in all the four quarters of the globe.

The second class is recruited largely from the first, and often only after many lessons of bitter disappointment drawn from the experience of many and grave disasters.

The practice of seeking cases for operation and of operating by blindly following the dicta of authority, without a full understanding of the condition to be relieved, is well illustrated by two surgical procedures which have been resorted

to, with far too great frequency, as I believe, by gynæcologists during the past and present decades. One of these procedures, the division of the cervix uteri for flexures, an operation without proper foundation in pathology, is generally useless and often dangerous, and always entails deformity. Emmet holds the following energetic language: "Since the practice of indiscriminate division of the cervix was first introduced by Prof. Simpson, more malpractice has been perpetrated throughout the world in the name of this simple operation than from any other procedure known to the profession."

So, too, great wrong has been done in seeking to follow the lead of Dr. Emmet in the performance of operations for the cure of lacerations of the cervix uteri. From the large number of operations reported by many practitioners, it may be fairly concluded that it has often been needlessly and unprofitably performed.

A simple knowledge, however accurate, of the parts involved, does not qualify one to make an intelligent prognosis, to decide upon the advisability of an operation or treat judiciously even such diseases as consist mainly in pathological changes in the part in question—to say nothing of the many cases in which subjective symptoms are referred to a particular part, when they are in fact but the local expression of some remote or possibly constitutional trouble.

Herein lies a danger which threatens the profession, through the adoption of exclusive specialties by those not well trained in general medicine. It cannot be denied that the early and exclusive study of the affections of a part tends to narrow the intellectual grasp and cramp the powers of the man who yields to the influences incident to such partial training. In the best sense, a specialist is a physician and something more; in the worst, he is something else and something less than a physician.

The rapid progress made of late years in the precision and perfection of regional surgery, the brilliant triumphs secured and the almost unlimited possibilities attained, combine to tempt surgeons to reckless operative procedures. Captivated by the knowledge that almost every region of the body has been, and therefore may be invaded without necessarily destroying life, we are in danger of overlooking the general influences which are ever present to modify and control the results of local injuries.

The local conditions calling for surgical operations are, besides, more easily studied by young surgeons than the

general conditions which may forbid them, and are more fully discussed in the text-books and college lectures. To learn what to do and how to do it, is always more attractive to the student than to be told what not to do. And this is especially true if the thing not to be done is something which he believes he can do well.

On the other hand, we recognize certain diseases and conditions, in which, however defective our knowledge may be in some respects, we are at least certain that very early operation is indicated, both as involving a minimum of risk, and as offering the best, or perhaps only chance, of saving life or of averting great calamity. In this class we include tumors, benign or quasi-malignant.

The propriety of the early removal of quasi-malignant tumors is nowhere better illustrated than in the case of sarcoma of the choroid—a disease which, by the aid of the ophthalmoscope, can now be positively and accurately diagnoscated at a very early stage of development. Left to itself for a few months, it will surely break through the outer coat of the eye-ball, and soon develop into a fatal and hideous tumor of the orbit, complicated probably with sarcomatous deposits in distant parts. Removed at an early stage by enucleation of the eye-ball, it may never return *in situ*, and life may be indefinitely prolonged.

In rodent cancer and in epithelioma, we now expect a cure by excision, provided it is done early enough; and even in mammary scirrhus, removal of the breast has exceptionally effected a permanent cure.

Sympathetic ophthalmia affords a striking instance, which may result either from not recognizing a danger in season, or from a want of promptness in dealing with it.

Scarcely any fact is better established than that a high condition of health is not the condition which best fits the patient to bear the forced confinement, the impaired digestion, the imperfect assimilation and the perverted excretion which follow any serious bodily injury or grave surgical operation. In such patients, we have learned to dread surgical fever and active inflammatory complications, leading possibly to septicæmia, and ending, it may be, in death. So, too, that standard of health marked by an unusual ability to bear continuous mental strain, taxing the digestive and assimilative organs to their utmost, is not that under which the effects of shock are best borne, whether it be the shock of a severe injury or of a capital operation.

On the other hand, a man whose life is not marked by

excessive tissue change, whose digestive, assimilative and excretory organs are not unduly taxed, and whose nervous system is not attuned to conditions of intense mental strain, is likely to bear well the shock of injury and the nutritive changes incident to prolonged confinement. Again, the chronic sufferer, whose nutritive and excretory organs have become educated, so to speak, to make good the excessive waste incident to any continuous drain, is often much better fitted to endure a grave surgical operation than is the new recruit of the army of sufferers. Very often the surgeon is compelled to act in the presence of morbid conditions of the most complex character. Thus, in strumous manifestations in connection with chronic, suppurative disease of the joints and bones, the profuse discharge makes the most exacting demands upon the nutritive functions, while the close confinement, pain and loss of sleep unite to destroy the appetite and impair digestion and assimilation. In such a condition (so clearly set forth in the case of hip disease by our distinguished ex-President, Dr. Sayre), we recognize in the cachexia the effect rather than the cause of the local trouble; and by resection or amputation of the offending limb, we may arrest the exhausting discharge and restore the disturbed balances between the process of nutrition and waste.

The dangers in certain depraved conditions of the body from injudiciously delaying an operation are forcibly depicted by Robert Barnes. He says: "My experience leads me to conclude that, in cases of urgent disease, there is more frequent occasion to regret having delayed the operation too long than having had recourse to it too soon. When through obstinate vomiting, for example, nutrition has long been arrested, the starved tissues, craving for supplies and falling into disintegration, feed the blood with depraved and noxious materials; the system feeds upon itself and poisons itself: the poisoned blood irritates the nervous centres, and these centres, wrought to a state of extreme morbid irritability, respond to the slightest peripheral uterine or emotional excitation. All nervous energy is thus diverted from its destination, and exhausted in morbid action. Irritative fever ensues; the pulse rises to 140 or more; no organ of the body is capable of discharging its functions, for the pabulum of life is cut off at its very source. At this point, labor, whether it occurs spontaneously, as it often does, or be induced artificially, comes too late. The tissues are altered, the powers are impaired beyond recovery, and death soon follows."

Shock may act profoundly upon the whole economy. Ar-

rested digestion, perverted assimilation, suspended secretion, and limited excretion may occur to vitiate the nutritive fluids of the body. Elements which should go to feed the tissues and provide materials for secretions remain unappropriated; excrementitious substances accumulate, and the body becomes gradually saturated with effete matters.

Operations for the relief of patients with old and tight urethral strictures, complicated with disease of the kidneys, afford illustration of the serious consequences which may follow shock in an already diseased organism. Internal division or forced dilatation of such a stricture may be attended with a degree of shock sufficient to arrest for the time the heart's action; or it may so act upon the whole neruous system as to check secretian and excretion generally. The diseased kidneys may thus cease altogether to perform their functions, leading to speedy death from uræmic poisoning; or, in the case of less aggravated renal trouble, the blood, becoming surcharged with morbid material, may no longer suffice to maintain the nervous centres in effective action; assimilation, secretion and excretion may all fail, and death ensue from septicæmia.

Anæmia, resulting from sudden loss of blood, is particularly unfavorable to surgical interference; besides the actual deficiency of blood, the diminished tension of the blood vessels favors the absorption of septic products at the site of the injury, while the blood, diluted and vitiated by the additional fluids absorbed from the tissues, becomes loaded with effete organic matter, ready to take on putrefactive changes. A similar instance of susceptibility to septic influences after a large hæmorrhage will occur to every obstetrician who has learned how often metritis and septicæmia follow excessive *post-partum* hæmorrhage.

Besides want of space, another reason for the omission of reference to other conditions which may demand or forbid a resort to the knife, is our want of exact knowledge. Especially is this true of those constitutional conditions we term diatheses. Using the word in its broadest sense, diathesis is any condition varying from the normal standard which disposes to the development of disease in the presence of trivial exciting causes. Other conditions which we habitually include under diathesis are themselves diseases—such, for instance, are scurvy, the scrofulous habit, tuberculosis and syphilis. A diathesis may be transient or permanent, retrogressive or progressive; it may be so marked in its manifestations as to force its recognition upon even the most careless

observer, or it may be so obscure as to elude the most painstaking scrutiny; and yet it may respond immediately and disastrously to an injury. In acknowledging our ignorance regarding the precise nature of such variations from the normal standard as we believe must exist in diseases like scurvy, scrofula, tuberculosis, etc., we recognize the existence of wide, uncultivated fields, rich, no doubt, in promise, to future investigators. A more perfect animal chemistry, a more thorough histology, and a deeper research into the possibilities of pathological change, will doubtless throw many a ray of light into regions where the darkness is now too dense for our vision to penetrate. To these fields coming generations of physicians will surely be attracted, in the faith that as man advances in knowledge, and approaches somewhat nearer to the comprehension of the perfect wisdom which designed the wonderful physical organism, through which he is brought into relation with the world around him, he will be enabled to solve more and more of the difficult problems which now perplex and baffle us, and will gradually raise medicine to a position more nearly akin to that now accorded to the exacter sciences.

On motion of Dr. Broctel, the thanks of the Association were tendered the President for his address, and a copy of the same requested for publication.

Report of the Foreign Delegates.—Dr. Joseph H. Warren, of Boston, Chairman of Committee of Foreign Delegates Abroad, presented his report. The reading of the report was deferred, and it was referred to the Publication Committee. Below is an abstract of this report:

One of Dr. Warren's most important and pleasing duties was his attendance upon the 48th annual meeting of the British Association, held August 10–13, 1888, in Cambridge. The meeting was said to be one of the largest and best gatherings of the kind held since the organization. Among the more prominent papers were those on Surgery by Timothy Holmes on "Fergusson and Conservative Surgery—Excision of the Knee and of the Hip"; the address in Physiology, by Michael Foster, on "Relations of Physiology and Pathology—The Professional Aspects of Physiology," and the address of Sir James Paget on "Elementary Pathology."

The various sections were all fully attended. Every paper was received in its order, and everything was managed in the most exemplary manner. For a more detailed account of the transactions, the Association was referred to the *British Medical Journal*, a weekly and influential paper, published by

the British Medical Association. Dr. Warren showed that he was deeply in love with the idea of a journal published by the American Association, and was fully impressed with the power which such a journal would have in developing the mighty but latent energies of the members of the Association and in advancing the progress of medical science. That such a journal would be the most powerful and most interesting in the country, he had no doubt; indeed, he was confident that it would exert a masterly influence in foreign lands, and present, more clearly than ever, the wonderful progress which America has made in the advance of medicine and surgery. It could summon as contributors and supporters the best and most highly esteemed men of the profession North and South, East and West. The wonderful strides which periodical medical literature has made in England since the establishment of the *British Medical Journal*, under the editorship of Mr. Earnest Hart. should be the greater incentive for this Association to abandon its annual publication and estaolish a weekly journal. No wonder, then, that the editors of the numerous petty journals that are daily springing up on every hand, like thorns and thistles by the wayside, have brought to bear all the influence they can master against the inauguration of a national journal. Dr. Warren thinks it unreasonable to suppose that this journal would injure the success of the various State journals already established, but would consider it a blessing if the contributors to the smaller and more local journals should throw their whole energies into the support of a single universal publication. This National Journal would not only advance the science of medicine, but it would convert the American Association from a routine body, having but a single annual publication, into a society of mighty influence and daily increasing in interest.

That the expense of a weekly publication should be an argument against its adoption, Dr. Warren considers unfair and unfounded; the advertisements alone would pay the cost of publishing; but even if any one should have a doubt of this, who is there, truly imbued with the love of medicine, that would not contribute the small sum necessary to support a journal, which would certainly, and, of necessity, bring honor and renown to the Society, of which he is proud to be enrolled a member. This extra expense, if any there be, would inevitably be the smaller as the weeks advanced; for this new journal would not only awaken a new interest in the Medical Association, but it would speedily increase its

membership. If this Association desires to throw its influence against all petty journals which have no cause for publication, except, perhaps, the profit accruing to their publishers, let it be wise in time, and remember that in union there is strength.

Of the further transactions of the British Medical Association, Dr. Warren spoke of the address of Sir Henry Thompson, entitled "Remarks and Progress in Stricture of the Urethra," and also an address by the same surgeon upon the "Removal of Stone by Lithotrity." Dr. Warren himself showed some twelve or fifteen of his newly devised surgical instruments, and read a paper on "Operations for Cure of Hernia by Subcutaneous Injections," which seemed to be well received. In the Section of Physiology there was an interesting discussion by Preyer, Brown-Séquard, Prof. Bowditch, of Boston, Dr. Beard, of New York, and others, upon that most recent study, "Sleep and Hypnotism." In Obstetric Medicine, the address by Playfair on "The Teaching of Obstetric Medicine" was very opportune, as showing that the instruction in this department should be much more thorough than they are wont to be. In the Section of the Diseases of Women, Dr. M. A. Pallen, of New York, read a paper on the "Etiology and Treatment of Laceration of the Cervix Uteri," a subject in which the English seem to display a want of knowledge.

But to Dr. Warren, the most beautiful and ennobling sight witnessed at the meeting, was the ceremony of conferring the honorary degrees—interesting to Americans because the coveted and distinguished title was bestowed upon Prof. Samuel D. Gross, of Philadelphia, as the father of American Surgery.

After announcements by the Secretary, the meeting adjourned until 10 o'clock to-morrow morning.

Second Day.—Wednesday, *May 4th.*—The Association was called to order at 10 A. M. by the President, Dr. Hodgen.

Committee on Nominations.—The Secretary announced the following as the Committee on Nominations: W. C. Cross, Ala.; W. B. Welch, Ark.; R. Beverley Cole, Cal.; G. A. Shelton, Conn.; T. S. Powell, Ga.; J. C. Stone, Iowa; H. C. Reno, Ill.; W. Lomax, Ind.; C. V. Mottram, Kan.; D. B. Greenlee, Ky.; F. E. Hitchcock, Maine; J. H. Mackie, Mass.; W. Brodie, Mich.; A. J. Stone, Minn.; W. S. Stone, Miss.; H. P. C. Wilson, Md.; T. B. Lester, Mo.; E. Gris-

som, N. C.; M. C. Lathrop, N. H.; Alexander Dunlap, Ohio; W. J. Asdale, Penn.; A. Coles, N. J ; Ariel Ballou, R. I.; R. A. Kinloch, S. C.; D. J. Roberts, Tenn.; C. L. Gwynne, Texas; A. C. Post, N. Y.; H. D. Holton, Vt.; O. F. Manson, Va.; James E. Reeves, W. Va.; J. K. Bartlett, Wis.; J. Ford Thompson, D. C.; J. M. Browne, U. S. Navy; John H. Janeway, U. S. Army; George Purviance, United States Marine Hospital Service.

Dr. J. M. Toner then read the report of the *Committee on Necrology*, which was referred to the Committee on Publication.

The Special Order.—As an amendment to the Code of Ethics, Art. I, paragragh 1, add " and hence it is considered derogatory to the interests of the public and honor of the profession, for any physician or teacher to aid in any way the medical teaching or graduation of persons knowing them to be supporters and intended practitioners of some irregular and exclusive system of medicine."

Dr. Solis Cohen, of Philadelphia, called for the reading of the entire paragraph with the amendment.

After the Secretary had read the paragraph with the amendment, Dr. H. O. Marcy, of Boston, moved to lay the amendment on the table. The motion was lost—ayes, 74; noes, 76.

The Chair was about to put the question, when an appeal was taken. and the decision of the Chair was reversed.

Dr. Dunster, of Ann Arbor, Mich., opposed the amendment. The first objection is that the amendment is contradictory to the Code as it now stands. We should do all in our power to extend the bounds of the usefulness of the profession. This amendment proscribes its limits. We are told that medicine is a liberal profession; this amendment absolutely denies the right of medical education to a certain class in our midst, and makes the profession a most illiberal and proscriptive one. Being coutradictory to the Code in these instances, it is contradictory to the spirit of the Code. The amendment is illogical, as a child can see that there is no connection with the paragraph to be amended, and the amendment as offered. The honor of a teacher does not depend upon those whom he teaches, but upon himself. Another objection is that the amendment must always be inoperative, even if adopted. There is no power to enforce this amendment, either by legal, moral or social measures. The enforcement of this statute would close every public clinic in America, because we are forbid to aid in any manner cer-

tain classes. There is also an objection because it is based upon the most fallacious assumptions. Now, if we teach the truth and the sciences as we believe, we know that no harm can result; if we adopt the amendment, we concede that the dissemination of science leads to error. Are you ready to say that no man shall teach the truth to all classes? Truth is the antidote of error, and sooner or later must conquer it. So far from denying truth to the unbeliever, we should do all in our power to extend its dominion.

He next proceeded to fortify his position by many illustrations and examples. "By all the considerations I have mentioned, I appeal to you to reach your conclusion with great deliberation; make your decision solely with the view of upholding the lasting honor of our noble profession, and take no step that can be construed by the world at large as a confession of want of faith in the perpetuity of rational medicine. Do this, and we shall have no occasion to regret the work of to day, for it will remove, in a large degree, the reproaches so often heaped upon us for our intolerance and bigotry, and it will open up a new era of generosity and toleration. Do the opposite and adopt this amendment, and it is a step backward in the historic march of medicine. Finally, in all your discussion and in your decision, forget me and the great University I have the honor to represent, for if you stand the disaster and the discredit that must come with the adoption of this amendment, we can certainly stand your censure."

Dr. N. S. Davis, of Chicago, moved that the amendment be the special order after the addresses to-morrow.

Dr. E. Lloyd Howard, of Baltimore, moved that the matter be indefinitely postponed.

The substitute was rejected, and the motion of Dr. Davis was adopted.

Dr. John H. Packard, of Philadelphia, from the *Committee on Journalizing the Transactions*, presented a report, which recommends the establishment of a weekly journal as the organ of the Association. The report closed with the folloning resolution:

Resolved, That the President be authorized to appoint a committee of five to digest and report in detail as soon as practicable upon the time, place, and terms of the publication of such a journal, to elect an editor, fix his salary, and to arrange all other necessary details.

The report was also signed by Drs. S. D. Gross, J. S. Wetherlee, E. S. Dunster, and W. B. Gillette.

Dr. N. S. Davis moved to strike out so much of the resolution as related to the election of an editor. Adopted.

On motion of Dr. H. O. Marcy, of Boston, the Committee was made to consist of the members of the old Committee who were in attendance upon the present meeting, and that the President appoint others to make the number required by the resolution as amended.

Dr. Toner moved that the Secretary and Treasurer be added to the committee. Adopted.

Dr. Toner offered a resolution instructing the Secretary to publish with the forthcoming Transactions of the Association the index of the proceedings of all the previous meetings. Adopted.

Address in Medicine.—Dr. William Pepper, of Philadelphia, stated that for some years the largest share of study has been devoted to those great general morbid processes grouped under the classes of *Specific Fevers as Zymotic Diseases.* He has been seriously impressed with the danger that follows from the too ready adoption of the popular theory of blood-poisoning to explain almost every case of an obscure or anomalous character. It will lead to mere scientific expectancy and to the use of routine methods, to the disregard of that watchful care in adapting remedies to the conditions for, and the functional derangement present that constitutes the sole basis of rational and successful practice. Let us consider this important matter somewhat more in detail.

In the first place, there are some diseases that may be taken as examples of pure specific zymosis, to employ the current term. Typhus fever is perhaps the best instance of the kind. In uncomplicated cases we have an intense disturbance of general nutrition, without any local lesions of the solids that modify materially the cause of the case. The symptoms are the result of the action of a specific cause; no antidote to that poison has yet been found; experience has shown that it will be eliminated from the system in a certain definite time; and therefore it is clear that treatment resolves itself into the use of carefully adjusted means for supporting the patient's strength until this elimination is completed. If any one symptom attains dangerous prominence, we attempt empirically to moderate it.

Again. If we possessed a perfect antidote for the poison of a zymotic disease, our medicinal treatment would resolve itself into the administration of that antidote in suitable doses and forms, with due regard to the state of the digestive organs. It seems as yet presumptuous to hope that we shall

ever possess such antidotes for the acute infectious diseases as we have for syphilis and malaria. But remarkable results have recently been observed to follow the use of large doses of bichloride of mercury in diphtheria. The original paper that brought this subject to his notice was published in the *Transactions Medical Society of Pennsylvania.* The extraordinary statements there made have been confirmed by the experiences, as yet unpublished, of several competent observers. A recent experience of his own was alluded to. He saw last month, with Dr. T. J. Yanno, of Philadelphia, a child of five years old on the fifth day of a grave diphtheretic croup. Beginning with marked pseudo-membranous deposit in the tonsils, croup had supervened on the third day, and suffocation became imminent. Alum emetics secured the discharge of several large thick sheets of membrane, evidently from the whole length of the larynx. But slight relief followed, and on the fifth day it was clear that the membranous exudation occupied the bronchi. She was repeatedly made to breathe the vapor of slaking lime; emetics were given when suffocative symptoms became very urgent; quinia, chlorate of potash and senega were given internally; milk and brandy were given as freely as possible. By the seventh day death seemed unavoidable. Aphonia had existed for five days; nourishment was refused almost entirely; the pulse was over 100, very small and feeble; respiration was 70, and shallow gasps. There was marked dullness around the roots of each lung, and impaired resonance over both lungs; the respiratory murmur was scarcely audible and mixed with feeble *râles.* Glandular enlargement had been slight; but the systemic infection was indicated by decided albuminuria, with quite numerous granular epithelial casts. The extremities were cool; the lips livid; the expression indicated advanced asphyxia. We had never seen a patient recover from such a condition; but it was decided to administer bichloride of mercury, $\frac{1}{32}$ grain every second hour, given in solution in elixir of bismuth and pepsin, each dose also containing two drops tincture of nux vomica. No other treatment was used. In the next 48 hours $\frac{1}{2}$ grain of corrosive sublimate was taken. No movement of the bowels occurred, and not the least irritation of the stomach; on the contrary, a willingness to take nourishment began to reappear; and by the end of that time it was evident that the exudation was softening and that more air was entering the lungs. The same prescription was continued with gradually decreasing frequency for a week, at the end of which time

convalescence was fully established; the urine gradually became normal, and the child is now in perfect health.

The most serious practical injury that seems to follow the excessive prevalence of the doctrine of specific self-limited diseases is the tendency to under-estimate the importance of local lesions, and of peculiarities of individual constitutions, as explaining the symptoms and determining the cause of diseases. Even in typically specific diseases, as, for instance, in typhoid fever, it is impossible to get the best results from treatment without paying the most careful attention to these questions. There are some local lesions, such as croupous pneumonia, or meningitis, that may appear as complications of specific fevers, which are much less apt to be overlooked than catarrhal lesions of the mucous membranes. He dwelt strongly on the importance of these catarrhal lesions, both as complications of specific diseases and as the essential cause of many cases that are mistaken for specific febrile affections. Reindfleisch does not exaggerate when he says that "the larger half of all the diseases to which humanity is liable consists of catarrhal affections of mucous membranes, or of disorders complicated by them." In no other country in the world can this statement be more true than it is here. The conditions that attend acute catarrh are congestion and swelling of the mucous membrane; enlargement of its lymphatic folliciles; increase of, and changes in its secretions. But while in many cases the secretions are excessive, as in cholera morbus or dysentery, or acute bronchitis, and constitute the most prominent symptoms, there are many cases of catarrhal inflammation where the secretions are perverted but not excessive, so that the presence of the lesion cannot be recognized by any so-called catarrhal discharges. These are cases where, owing to individual peculiarity, or to the localization of the irritation upon some special anatomical elements of the mucous membrane, the amount of muco-serous discharge bears no proportion to the amount of epithelial proliferation, or glandular swelling. One of the best illustrations of this is the cellular catarrh of the lung—a circumscribed catarrhal pneumonia—often involving small areas near the roots at the apex, or indeed in any part of the organ. It is an excessively frequent affection, and he believes that, owing to the frequency with which it is overlooked, it constitutes the most common starting point of that most common form of consumption, catarrhal phthsis. There may be scarcely any expectoration, and a cough that is not very annoying, and that may readily be regarded as merely nervous or imitative. Yet

the capacity of localized catarrh to induce marked symptoms of constitutional disturbance is admirably shown in these cases. There will very often be observed a distinct febrile movement of an irregular and often of a distinctly intermittent character; and in consequence of the want of symptoms of marked pulmonary irritation, such cases are continually being mistaken for malarial fever, and being treated with so little rigor that, although the fever subsides, the local lesion is left smouldering till renewed congestion awakens fresh activity, and till slow cheesy transformation occurs and paves the way. In septic absorption due to the development of tuberculosis, nothing but an unvarying practice of thorough, physical exploration of the lungs in every case of acute disease will obviate these fatal oversights.

The theory that increased tissue-metamorphosis and chemical interchange are the essential causes of, and commensurate with the elevation of temperature in febrile diseases, has been prevalent for some years past. According to this, it is easy to explain the fever that attends any inflammatory lesion of considerable magnitude. But practically it has been the custom, if some inflammatory centre of adequate extent could not be detected, to suspect that the fever was a specific one, due to the admission of an infectious principle into the system and blood-poisoning, and that the increased chemical changes in the blood were the cause of the febrile movement. This is merely another illustration of the present exaggerated tendency to regard diseases as specific; and in the hands of certain investigators, chiefly of the German school, it has led to methods of practice that appear irrational or mischievous. The degree of fever-heat has become a definite entity, to be determined by repeated thermometric observations, and accepted as dictating absolutely the line of practice. The system is to be supported by abundant food and free stimulation, and the fever reduced by measures proportionate in vigor to its intensity; and if these two indications can be successfully complied with till the self-limited stadium of the disease has expired, treatment has been successful. It matters little which may be the particular antipyretic method that is associated with each degree of fever heat, whether the patient is to have a wet pack or a cold bath so soon as his temperature reaches 103° or 104°, whether these may be postponed till it reaches 104°—that against which clinical experience protests is the one-sided and arbitrary nature of all such rules. We owe very much to recent observers, among whom Walton and Wetherle, of our own country, rank prominently, for re-

asserting the complex and valid nature of fever, and thus furnishing a scientific basis more in accordance with enlightened clinical observation. But it is chiefly to the elaborate and masterly experiments and reasoning of H. C. Wood that we owe most.

Dr. Pepper thinks it has been shown that the degree of bodily temperature in few depends, in greater or less measure, upon a disturbance in the natural play between the functions of heat-production and heat-dissipation, and is not an accurate measure of the intensity of increased chemical movements of the tissues. It further appears altogether probable that an inhibitory thermic centre exists, and that this may be so depressed by morbid influences that tissue-change and heat-production are increased; while at the same time, owing to the disturbance of the vaso-moter centres, the dissipation of heat is reduced. Not only may the depression of the inhibitory centre be caused by the circulation in the blood of special morbid matters, but reflex irritation from some centres of local disease may be either so intense or so prolonged as to produce the same result. Moreover, such great differences exist between different individuals in the resisting power of the nerve centres that very different degrees of fever may result from an equal amount of local disease or from an equal amount of septicæmia, and the signification and therapeutic indication of given degrees of fever must vary correspondingly. In a case of typhoid fever, for instance, the temperature rises by the eighth day to 103° or 104°, and the pulse to 110 or 120. If this be the result of a severe zymosis with comparatively slight catarrhal irritation of the gastro-intestinal mucous membrane, and in a subject with good nervous tone, large doses of quinine or salycilic acid, full amount of suitable diet and stimulus, will doubtless be appropriate treatment; or if these fail and the temperature continues to rise, the use of cold water externally is desirable.

But typhus fever stands pretty much alone in its freedom from local lesions or complications; so that the above theory of treatment is applicable to other zymotic diseases only with considerable modifications. But in other instances Dr. Pepper found a temperature of 104° to 105° reached daily for ten or twelve days in cases of typhus fever, where the nervous, circulatory and digestive symptoms all indicated that the septicæmia and gastro-intestinal irritation were both mild; so that the high temperature was apparently due to a predisposition on the part of the nervous system to a failure

of its heat-controlling function. In such cases no serious harm has resulted from the sustained high temperature, but a simple plan of treatment, with scrupulous care to allay the intestinal irritation as much as possible, and the avoidance of any other measures to reduce the temperature, has been followed by satisfactory recovery.

So fully impressed is Dr. Pepper with the important part played by the gastro-intestinal mucous membrane in causing or aggravating the symptoms of fever and other diseases, that he is convinced actual harm is often done by the use of remedies calculated to reduce temperature when due solely to the blood-poisoning, but which are too irritating to be tolerated by a morbidly sensitive mucous surface. Undoubtedly the more general introduction of the external application of water as a means of reducing excessive pyrexia has done much good, both directly and indirectly. If the diet and treatment in the early stage of typhoid fever are carefully adapted to the degree of gastro-intestinal catarrh present, the need of cool baths or other extreme means to relieve hyperpyrexia will be comparatively infrequent.

Dr. Pepper noted the important *rôle* that catarrh of the gastric intestinal mucous membrane plays in connection with many inflammations of other organs. For instance, in pneumonia, the morbid influence that has caused the pulmonary influx, frequently causes a catarrh of the mucous membrane that is really a distinct pathological condition. It demands that treatment shall be adapted to the complex condition present. Any one who has witnessed the excellent results of proper treatment in acute pneumonia will hesitate long before accepting the theory that this is a specific, self-limited fever, the symptoms of which are the necessary results of the evolution of a special poison in the blood.

Important as are the varying expressions and relations of catarrhal inflammation in its acute forms, fully as great interest attaches to the study of *chronic* catarrhs. Close study of the cause of very many chronic diseases will convince us that they do not depend on one continuous morbid process, pursuing a slow and necessary course; but that the affected part, having had its power of resistance reduced by the original inflammatory attack, or by a series of congestions, has finally become the seat of chronic catarrhal changes.

It must suffice to allude to the remarkable results produced, in persons of sensitive, nervous temperament, by long continued catarrhs, even of small extent. The prolonged local irritation ends by causing a morbid reflex excitability

of the nerve centres, with exhaustion of nerve power, as in gleet, in chronic uterine catarrh, in nervous dyspepsia, etc. It is often difficult to decide whether an overtaxed or depressed state of nervous system has been the initial trouble, and has led to the impaired function of the stomach or uterus, or whether the long-continued local disease has induced the nervous disturbances. The powerful effects produced on the nerve centres by prolonged local catarrhs serve to illustrate the important part that is undoubtedly played by acute catarrhal irritation of the gastro-intestinal mucous membrane in the production of the nervous symptoms of many inflammatory and zymotic diseases.

The injurious effects of chronic catarrh are of course most marked when, as in the case of catarrhs of the alimentary canal, they lead to mal-assimilation of food and consequent depravation of the blood. It is not necessary that such catarrhs should be attended with excessive secretions that would constitute a direct drain upon the system. There may be a single partially soft stool daily; or more commonly there may be a single undigested stool once in two or three days, and during the intervals entire quiet of the bowels; for finally there may be habitual constipation; and yet all the while a slow catarrhal process may be present in the epithelial layers and lymphatic follicles of the intestinal mucous membrane. In many cases of so-called nervous prostration, in many cases of causeless anæmia, the essential cause of the morbid condition will be found on close search to be a localized catarrh of the same part of the alimentary tract, the cure of which by suitable diet, hygiene and drugs will be speedily followed by restoration to health.

A second common result of chronic catarrh is the maintenance of a slow irritative fever. He has not infrequently met with cases where an obstinate irregular febrile movement, which was regarded as the result of chronic malaria, but which had entirely failed to yield to antiperiodics, was in reality dependent on a gastro-hepatic or gastro-intestinal catarrh. It seems probable that the recent investigations as to the mechanism of fever will lead to a more simple explanation through the direct agency of the nervous system.

Another and most serious manner in which chronic catarrh influences the system to produce constitutional diseases:— When the catarrhal swelling of the mucous membrane of a common bill-duck imprisons secretions rich in organic matters, decomposition is apt to occur, and poisonous matters are formed and absorbed, which give rise to serious septic

fever. More serious still are the consequences that arise when, owing to the anatomical arrangement of the lung, the catarrhal products themselves are retained and undergo slow cheesy degeneration. The enormous frequency of this catarrh, the conclusive evidence of its tendency to terminate in this way, and the demonstration of the connection between softening cheesy deposits and infection and tuberculosis of the surrounding tissues and of the system at large, are facts that give to this process a supreme practical interest.

There are undoubtedly rare cases of primary tuberculosis; there are also many cases where the constitutional tendency to the acquisition of tuberculosis is so strong that it is impossible to prevent its development from the most trifling provocation; there are still other cases where the first attack (of catarrhal pneumonia for instance) causes irreparable injury and leads inevitably to destructive phthisis. But Dr. Pepper's experience points clearly to the fact that in the great majority of cases the disease begins as an acute circumscribed catarrh which, from inadequate treatment, from inherent weakness of tissue, or from neglect of hygienic rules so that similar attacks are allowed to recur, paves the way for a chronic catarrhal process of which cheesy degeneration and ulcerative softening, with or without tuberculous infection, are the common and fatal consequences.

I can draw no other conclusion from careful and extended clinical observation but that in its early stages this, the commonest form of phthisis, can be largely controlled by treatment embracing hygienic, dietetic and medical means assiduously and persistently employed. It is of course evident that of any given number of such patients who are placed under fair hygienic conditions and trusted to the influences of nature alone, some proportion will recover; because in them, after the removal of the depressing influences that have reduced the tone of the system and rendered it susceptible to catarrhal attacks, the tissues retain sufficient vitality to react and to prevent the extension of the local disease, and because no special tendency exists to tuberculous infection. But it seems equally evident that this proportion is capable of being greatly enlarged, and the duration of the disease greatly reduced, by the persistent employment of skillful and appropriate treatment; and further, that, to attempt to establish a theory that phthisis is a self-limited disease, in any special sense of the term, is to ignore the teachings of modern pathology and the results of clinical observation.

Address in Obstetrics and Gynæcology.—Dr. Jas. R. Chad-

wick of Boston, Chairman of the Section, invited attention to a *Statistical Consideration of the Whole Volume of Literature upon Obstetrics and Gynæcology During the Past Four and a Half Years.*

Obstetric and Gynecological Periodicals.—The total number of periodicals has increased in the five years from 13 to 22, nearly 60 per cent.; the American have increased 100 per cent.; the French, 50 per cent.; the German, 30 per cent.; Begium, Italy and Denmark have entered the lists with one periodical each; and England and Spain have remained unchanged. These special periodicals may be regarded as one gauge of the degree of interest taken in this branch of medicine in the different countries.

Certain characteristics distinguish the publications of the different countries. For instance, those of Germany contain more contributions to the science of medicine; whereas those of America contain more papers of a practical nature; those of France are more controversial, being more essentially the organs of separate cliques.

Another means of estimating the relative prominence of this branch of medicine in different countries is an enumeration of the special societies. America predominates in this list, containing as many societies as exist in the rest of the world. Too great significance must not, however, be attached to this fact, for one cause of this development of Societies is purely geographical. In England it is possible for those who are specially interested in gynæcology and obstetrics to attend the meetings of the Obstetrical Society of London, as actually happens, whereas in America the distances to be traversed are so great as to render this impossible As a result of these two extremes, we find the English societies have 300 or 400 members, while the membership of the American societies ranges from 20 to 50 each. The lack of any special Society in France is striking, and unaccountable when contrasted with the large number (6) of special journals issued in that country.

The bulk of the special literature may best be appreciated by the aid of this table:

Last six months of—	Sep. Pub.		Articles.		Articles.		Total.
1876	91	=	1374	+	753	=	2127
1877	194	=	2388	+	1698	=	4086
1878	168	=	1320	+	2203	=	3523
1879	265	=	2194	+	2644	=	4838
1880	178	=	2116	+	2614	=	4729

In this table Dr. Chadwick resolved the separate publica-

tions into their equivalents in journal articles, reckoning an article at an assured average length of ten pages, which is above rather than below the average length.

In the first place, the volume of this special literature is increasing at the rate of 25 per cent. a year. The figures for 1880 are too small, as the titles are not all at hand at this date. The volume of literature thus shown to be devoted yearly to a single branch of medicine fully justifies the urgent need for specialization of practice. Even admitting that 90 per cent. of these writings merely reiterate facts in medicine familiar to gynæcologists, there still remains an immense amount of reading incumbent upon one who would keep abreast with the advances in this branch of medicine.

A further analysis of these figures for one year (1880) discloses some interesting facts with reference to nationalities. In the first place, France has issued the greatest volume of literature, equivalent to 1,643 articles; America, 1,319; Germany, 669; Great Britain and Ireland, 488. Dividing these into general subjects, we have: France—Obstetrics, 941; Gynæcology, 702; America—Obstetrics, 608; Gynæcology, 708; Germany—Obstetrics, 350; Gynæcology, 669; Great Britain and Ireland—Obstetrics, 231; Gynæcology, 257.

This predominant interest of France in obstetrics is restricted to a moderate number of writers, for in analysing the French contributions, 51 separate publications were published during the year, which has been estimated as equivalent to 598 articles; deducting these from 941, we have 343 real germinal articles. In America only eight books were issued, equivalent to 113 articles, leaving 485 articles. In Germany a similar process reduced the articles to 149; in England to 158.

Under Gynæcology similar reductions change the relations as follows: France, 293 articles; America, 346 articles; Germany, 201 articles; Great Britain and Ireland, 162 articles.

The inferences may be summed up as follows: *In America* there is a much greater number of contributions in both general branches than in any other country. *In France* the whole volume of obstetric literature, nevertheless, exceeds that of America by one-fifth—a curious discrepancy which may be attributed mainly to two factors: first, the publication of graduation theses; and second, the stimulus given to the professors to the writing of treatises from the rivalry engendered by their being mostly inhabitants of Paris, and having charge of competing clinics. The cause of the small number of contributions from Germany is probably due to

the fact that they emanate chiefly from university professors and instructors whose chief motive is the desire for academic promotion, and whose writings are, consequently, for the most part, records of extensive research or investigation; they are, hence, much longer, on the average, and require a longer time for their preparation. Dr. Chadwick cannot explain the lack of interest displayed in England by these figures.

Under the general heading of ovariotomy, we see a marked increase from year to year until a falling off is recorded for 1880. Under the sub-head of "ovariotomy" there is a steady increase, while in the past two years there has been a steady decrease in the number of "cases of ovariotomy": the change must be apparent to all.

Normal ovariotomy, which was devised and first carried out by the genius and pluck of our countryman, Dr. Battey, has deservedly claimed more attention during the past three years than any other new operation; but during 1880 its volume of literature has been on the wane—its true value and limits of usefulness having been nearly defined. *Porro's Cæsarean section*, with extirpation of the uterus, appeared as a new operation in 1879, and has since been vigorously advocated and discussed. The central and systemic effects of renal disease [in the table omitted] show in the aggregate a marked increase in prominence quite commensurate with their importance. The *forceps* were brought forward as a special topic in 1878 by the invention of new form by Tarnier, and in 1879 by the formal discussion of the extent of their utility at the Obstetrical Society of London; hence the greater figures under these two years. *Tumors of the uterus* continue to attract an interest proportionate to the extension of abdominal surgery. *Extra-uterine pregnancy* has been brought to the front during the past five years mainly through the labors of Parry and Thomas—both Americans. *Puerperal septicæmia* evinces a small but increasing popularity commensurate with interest now taken in all diseases attributable to putrefactive changes or the development of germs. *Cancer of the uterus* received an impulse in 1879 which is more than sustained in 1880 by the publication of the alleged curative effect of Chian turpentine in the hands of Dr. John Clay of England—a claim not corroborated by the experience of other observers. *Incision of the cervix uteri* had its day before the years covered by my tables, and is fast sinking into oblivion. *Laceration of the cervix uteri and its end*, by the simple operations of Dr. Emmet, can scarcely be

said to have passed from the state of novelty to that of criticism. It is destined to be a fertile topic for years to come, when it too will be assigned its proper sphere—a very restricted one as I believe. The *Treatment of the Vomiting in Pregnancy by Dilatation of the Cervix Uteri*, devised by Dr. Copeman, of England, brought this topic forward in 1878 and 1879. Its decadence in 1880 is manifest. The subject of *Lying-in Hospitals* was prolific of discussion in 1878, especially in 1879, but is now on the wane.

General Conclusions.—The above analysis with regard to nationalities, manifests the prominence of America in this branch of medicine. America contributes more journal articles than any other nation; supports by contributions, both literary and pecuniarily, as many special periodicals as France, and twice as many as either England or Germany, and carries on as many special societies as all the other countries of the world together.

England, despite the labors of Wells, Keith, Thornton, Barnes, Duncan, Tait, Leishman and Playfair, is fast losing its pre-eminence in this branch of medicine, and has recently demonstrated its inability to support even one special journal, by the discontinuance of the *Obstetric Journal of Great Britain and Ireland*, on January 1st, 1881.

France is exhibiting an unnatural activity, under special influences already adduced.

Germany holds on the even tenor of its way, while Belgium, Italy, Spain, Denmark, and Russia are awakening to a more active participation in the advance and dissemination of obstetric and gynecological lore.

Dr. Chadwick closed by giving an estimate of the quality of each nation's contributions to the science and practice of gynæology and obstetrics.

Germany advances pure science more than any other nation; the leaders in its three journals are the most profound and the most critical.

France manifests a great dearth of original ideas and a most discursive style of discussion, but considerable painstaking historical research. Its journals are prolix, and, for the most part, profitless reading, and exceed in number the legitimate demand.

England exhibits a waning interest in this branch of medicine, little originality, but a notable discrimination in adopting new theories and applying them to practice.

To America Dr. Chadwick accorded pre-eminence in this special field. Our countrymen meet the emergencies inci-

dent to child-bearing with a quickness of perception and readiness of action rarely seen in other countries. Their ingenuity has led them to devise new operations in gynæcology and to carry their art with brilliant results, so that to-day the practice of that branch has reached a stage here far in advance of other nations. Of course our natural aptitudes lead many of us to overestimate the beneficial results of surgery; but taken all in all, close observation and study in most of the countries of Europe, confirms the opinion that in obstetrics and gynæcology, America leads the world.

The most prominent exponents of our branch in America —*The American Journal of Obstetrics* and the *Transactions of the American Gynecological Society*—present a more happy blending of scientific facts and practical suggestions than is found in other special gynecological or obstetrical journals in the world.

Members by Invitation.—Drs. W. J. Lumsden, of New Jersey, and J. N. Butt, of North Carolina, were elected members by invitation.

After some announcements by the Secretary, the Association adjourned till 10 A. M. to-morrow.

THIRD DAY—THURSDAY, *May 5th.*—The Association was called to order at 10 A M. by the President.

After prayer by Rev. Dr. W. E. Hatcher of the Baptist church, Dr. F. D. Cunningham stated that a communication had been received from Dr. Janeway, of New York, which was referred to the Judicial Council. He also announced that Dr. A. Jacobi, Chairman of the Section on Diseases of Children, would make his address before the Section instead of before the Association.

On motion of Dr. S. D. Gross, the rules were suspended. He then offered a resolution to so amend the By-Laws as to establish an additional Section, to be known as the Section of Dentistry.

A motion so as to further suspend the rules for the immediate adoption of this resolution having been objected to by Dr. Toner and others, was defeated, and the amendment lies over one year.

The President announced as the *Committee on Journalizing the Transactions*, Dr. John H. Packard, of Philadelphia; N. S. Davis, of Chicago; J. S. Billings, of Washington; Lewis A. Sayre, of New York, and R. Beverly Cole, of San Francisco, besides the former members as named in Dr. Marcy's resolution on yesterday.

Operative Interference in Gunshot Wounds of the Peritoneum

was the title of a paper read by Dr. Hunter McGuire, Richmond, Va., Chairman of the Section on Surgery. [Few surgeons have had greater experience in treating gunshot wounds occurring both in military and civil life, and few have appreciated more fully how unsatisfactory are the results obtained from the expectant or do-nothing plan so much in vogue. The title of the paper indicates the grounds taken by the writer in favor of operative interference, and the views embodied in the paper tend to prove the position advanced by the writer, that the patient will exchange an almost certain prospect of death for at least a good chance of recovery, and should, we think, embolden surgeons to think less of expectant treatment and more of operative interference.]

Statistics from the Crimean, the French and the late civil war in America show that more than nine out of every ten cases of the wounds of the belly, opening into the cavity of the peritoneum, perish—no other gunshot wounds being so deadly, not even penetrating and perforating wounds of the skull. In the British army in the Crimean war, penetrating gunshot wounds of the belly gave a mortality ratio of 92.5 per cent. For similar injuries in the French army in the Crimea, 91.7 per cent. died; and in 3,717 cases of penetrating wounds of the belly reported in the late American war, the ratio of mortality was 87.2 per cent., and many of the cases of reported recoveries were "not unequivocal." In 2,599 cases where visceral injury existed, 92.2 per cent. died. In incised, punctured and gunshot wounds of the peritoneum, the general plan of treatment has been to enjoin absolute rest, give opium to prevent peristaltic action, and encourage the formation of adhesions, in the idle hope of preventing extravasation into the peritoneal cavity. It is claimed that the wound may paralyze the muscular coat of the bowel; or in small wounds the mucous coat is everted and closes the aperture; or the part injured may not be covered with peritoneum and no extravasation take place within the peritoneal cavity, or that the serous membrane covering the intestine near the point wounded may become adherent to the omentum, to the bowel or to the abdominal wall, and the orifice in the bowel become permanently closed; and last, but very rarely, the extravasated mass may become encysted, end in abscess, and discharge itself through the neighboring skin or mucous surface. In perforation of the bowel from disease, or rupture of intestine without external wound, such results are not looked for. Effusions then are expected. In the opinion of the writer, when we remember that the alimentary

canal is never completely empty, common sense teaches us, when an opening is made in any portion contained in the peritoneal cavity that its contents will escape; that there will probably be less resistance to the passage of fæcal matter through the unnatural aperture than along the sides of the canal itself. Gas may first be expelled, separating peritoneal surfaces, and then the fluid or solid contents of the bowel follow. Only one or two exceptions to this rule are reported in the history of the late war between the North and South. But, besides alimentary effusion, blood, air, bile and urine may also be extravasated into the peritoneal cavity.

Penetrating wounds of the belly, with fæcal effusion, are rapidly followed by general acute peritonitis; 90 per cent. die, and within 48 hours. Does peritonitis from any other cause, as a rule, kill as quickly? In spite of the assertion of Malgaigne and others, that the organs contained in the belly fill the cavity to such repletion that shot wounds of that space, without visceral injury, are impossible, *post-mortem* examinations and experiments upon dead bodies show that wounds of the peritoneum can be made without injury to the contained viscera. It has fallen to the lot of the writer to witness four such cases. Two occurring in civil life, and being the subjects of legal investigation, careful autopsies were made. Two were soldiers dying from peritonitis, and the autopsies showed no visceral lesion. These four cases, which are reported in some detail, coming under the observation of one individual, and having their exact character shown by *post-mortem* examinations, prove that such results are not impossible, and probably not as rare as we have been led to suppose. The same pathological appearance in all of these cases—peritonitis and the presence of large quantities of acid, bloody serum in the abdominal cavity. The rare cases of recovery from penetrating wounds of the abdomen have induced surgeons to continue the expectant plan of treatment in place of what appears, at first sight, to be a desperate surgical interference. Some of the alleged recoveries may have been wounds of a portion of the large intestine not covered by peritoneum. Recovery, with fæcal fistula, is not uncommon in this case; others may have been penetrating wounds without visceral injury; others again may have been parietal wounds without peritoneal penetration.

In connection with the four cases of gunshot wounds of the peritoneum alluded to by the writer, and in which there was no visceral injury, the total absence of shock was remarkable, and as well as no diminution of temperature. One of

them (a soldier) assured Dr. McGuire that he did not know that he had been wounded until some time after he had been shot. Another (wounded in a duel) insisted that he was able to stand up and give his antagonist another fire. On the other hand, in all cases with visceral lesions, the shock of injury is a prominent symptom.

The presence or absence of shock seems to be a diagnostic point of no little value. If to this be added sudden meteorism, the character, extent and direction of the wound, bloody discharges from the bowels or stomach, an almost certain diagnosis by rational symptoms will be reached.

In reply to the question, Why are these injuries so fatal? why, after escaping death from peritonitis, shock and hæmorrhage, peritonitis is fatal in 48 hours? Dr. McGuire attributes death to some kind of blood-poisoning connected with peritonitis, just as we often see septicæmia associated with peritonitis under other circumstances, notably after parturition and ovariotomy. He believes that the blood-poisoning after gunshot wounds of the peritoneum is consequent upon the pent-up red, sero-fibrinous exudation which traumatic peritonitis invariably produces in abundance; and that if this effusion could be drained off as soon as it is formed, septicæmia might be prevented. In lacerated wounds of the abdominal walls, with exposure of the cavity, protrusion of the contents and the introduction of foreign matter into the cavity are nothing like so mortal. The writer then gives in detail six cases of lacerated wounds of the abdomen, with visceral exposure, or visceral protrusion where recovery took place.

In all of these cases the nature of the wound prevents union by the first intention, and drainage of abdominal effusions is effected. Dr. Otis says it may still be considered doubtful if an incontrovertible instance of recovery was observed during the late war of shot wound of the small intestine, and of shot wound of the stomach there was but one case of undoubted recovery. In the fifty-nine cases of recovery after penetrating wounds of the large intestine, reported during the late war in America, fifty-five were perforating wounds, the large aperture of exit being usually on the posterior surface of the body, dependent and facilitating drainage. In one of the four instances of recovery in simple penetrating shot wounds of the large bowel, the edges of the opening in the bowel were fastened to the wound in the abdominal wall; and in this, as well as in the other three cases, fæcal fistulæ were formed.

Shot wounds of the pelvis are nothing like so fatal as wounds of the peritoneum higher up. Unless accompanied by grave visceral lesion, three cases out of four of penetrating or perforating wounds of the pelvis recover. Can this fact be satisfactorily explained upon any other theory than that drainage in these wounds is almost unavoidable? Indeed, in these cases we are taught to explore the wounds with the finger, remove loose pieces of bone and foreign bodies, and keep the aperture of entrance and exit open, that free vent may be given to all inflammatory products; and if the size and position of the wound do not facilitate this, we make the opening bigger and insert a drainage tube.

Spencer Wells attributes the fatality after ovariotomy to some form of pyæmic fever, or some form of blood-poisoning so often associated with peritonitis; and Dr. McGuire thinks the lesson taught by many successful ovariotomists of providing for the escape of inflammatory matter, of great value, and one which should be profited by by the surgeon who treats gunshot wounds of the peritoneum. Ovaritomists even go so far as to wash out the cavity when peritonitis exists and death from septicæmia is imminent. In many of the cases of penetrating wounds of the peritoneum, the ball passes obliquely through the abdominal wall and the aperture shuts up like a valve; or if passing directly through the parietes, the aperture of entrance contracts at once and closes. To all intents and purposes the cavity is hermetically sealed, and the missile, pieces of clothing, blood from wounded vessels, fæcal effusion, if the intestine is wounded, and inflammatory products, are all hopelessly imprisoned there. Can it be wondered that such wounds are fatal? In no other gunshot wounds of cavities do we allow the wound of entrance and exit to be closed. Who would think of shutting up the opening in gunshot wound of the knee-joint? During the late war, the plan of hermetically sealing up wounds of the pleura, a structure analagous to the peritoneum, proved most disastrous. In gunshot wounds of the chest involving the serous membrane, we keep the wound patent, and if not dependent, we do not hesitate, when effusion takes place, to make a counter-opening with a knife or trocar, and sometimes to flush out the cavity with detergent and antiseptic lotions.

In view of these facts, the writer ventures to advocate operative interference in gunshot penetrating wounds of the peritoneum with intestinal injury; in penetrating wounds of the peritoneum with any visceral lesion, and in penetrating

wounds without visceral injury. The wounds in the abdominal walls should be enlarged, or the linea alba opened freely enough to allow a thorough inspection of the injured parts. Hæmorrhage should be arrested. If intestinal wounds exist they should be closed with animal ligatures, trimming their edges first if they are lacerated and ragged. Blood and all other extraneous matter should be carefully removed, and then provision should be made for drainage. If the wound entrance is dependent, drainage may be secured by keeping this open. If the wound is a perforating one, and the aperture of exit dependent, the patency of this should be maintained, and, if necessary, a drainage tube of glass or other material introduced. If there is no wound of exit, and the wound of entrance is not dependent, then a dependent counter-opening should be made and kept open with a drainage tube. If it is urged that the means suggested are desperate, it can be said in reply that the evil is desperate enough to justify the means.

At the close of the reading, Dr. McGuire was loudly applauded, and his paper appropriately referred.

Dr. J. T. Reeve, of Lansing, Wis., Chairman of the Section on State Medicine, who was to have read a paper, being absent, his time was occupied by Dr. J. S. Billings, in a paper on the following subject:

Some of the Results of the Tenth Census as Regards Mortality Statistics.—Dr. J. S. Billings, of Washington, D. C., stated that this paper was prepared to be read before the Section on State Medicine, but was of such general interest that Dr. Billings was requested to read it at the general session.

At the meeting of the Association in Atlanta, in 1879, the chairman of the Section on Hygiene, in his address, called attention to the opportunity presented by the coming census for obtaining more satisfactory mortality statistics for the whole country than have heretofore been collected. A letter from the Superintendent of the census was read, in which he requested the coöperation of the medical profession of the country, both as to general influence and technical assistance, in obtaining the records desired. Early in the census year forms were prepared for a small register of deaths to be kept by physicians. Each register contained twenty-four such slips, and a copy of the register, with a stamped envelope for its return at the end of the census year, was sent to every one in the United States who was reported by his or postmaster to be a physician, or addressed as such.

The registers received were examined by a skilled physi-

cian, who indicated on each slip the name of the cause of death to be used in tabulation. Very few of the registers were in such a condition that they could not be used for statistical purposes, although as a matter of course, some of the causes of death reported could only be classified as unknown. This had been foreseen, and in the address above referred to it was expressly provided that the physician should use such terms as "paralysis of the heart," "apnœa," etc., as equivalent to "unknown." This point was not, however, made so clear as it should have been in the registers, as will be seen by examining the foot-note of instructions, although the intent was probably understood by the great majority of physicians. The number classified as "unknown," was 4,162 out of a total of 166,895, being about 25 per 1,000.

The number of *post mortems* made in this number of deaths was 3,755, or 20.7 per 1,000.

When the examination and checking of these registers was completed, they were taken apart; and as each leaf furnished the record of a single case, they could then be used as cards, and readily assorted and classified in various ways. The first classification was into groups by counties. Those coming from the large cities were then set aside, and the remainder, representing the character of the fatal diseases in rural districts and small towns, were so compiled as to show by age, sex and color, the number of deaths from each cause.

The units of area or locality used in this compilation was neither the State nor the county, but groups of counties in each State, selected according to altitude and topographical characteristics by the geographer of the census. Each State contained from two to six such groups, and thus we can group the prevailing causes of death on the sea coast, on the table lands, among the hills, etc. As the number of deaths returned by physicians upon these registers has no definite relation to the actual number of deaths which occurred in any given locality, and still less to the actual population of that locality, these registers can only be used in this connection to show the proportional frequency of certain causes or groups of causes of death to the whole number of deaths reported in them or to each other. They have other and important uses, as I will explain presently.

The nomenclature and nosological classification adopted are essentially those used in the last census, being that prepared by the Royal College of Physicians. The most important differences in it from the old nomenclature of the college, are the abolition or the division of general diseases into

two groups—A and B—and the placing in the general diseases of the various forms of diarrhœal diseases, which before were placed under diseases of the digestive organs. These modifications have been approved by the National Board of Health, and are now under consideration by the Committee of the College, which is engaged in the revision of the nomenclature.

After the compilation above referred to had been completed, the slips were used to correct and complete the lists of deaths prepared by the enumerators. The blanks for these lists, which are known as the mortality schedules, differ from those used in previous censuses by having columns for the nativity of the father and mother of the decedent, the length of his residence in the county, the place where the disease was contracted, if not in the county, and the name of the attending physician. They also contain two supplementary schedules, one giving the names of those dying in the place, but belonging to families living in another county or State; the second giving names of persons belonging to families residing in the place, but who have died away from home in another county or State.

The first rough count shows that about 620,000 deaths have been returned upon these schedules. To these, there will be added from the register slips above described about 50,000 deaths, and the records of the cities from which no enumerator's schedules are received, will add about 80,000 more, making a total of about 750,000 deaths returned for the year, which, for a population of fifty million, give a death rate of fifteen per thousand. While it is certain that this does not include all the deaths, it is evident that it is much more complete than previous censuses—the total number of deaths for that of 1850 having been 323,098, being a mortality rate of 139.10 per thousand In 1860 there were returned 394,153 deaths, being a mortality rate of 125.10 per thousand. Upon this last Professor Elliott constructed life tables, assuming a deficiency in returns of deaths of 41 per cent., or, in other words, that the true death rate was a little over 18 per thousand. If this were assumed as the true death rate for the last census year the deficiency in returns would be less than ten per cent.

From this brief statement it will be seen that General Walker is to be congratulated upon the improvement which has been effected in the Tenth Census in regard to the completeness of the mortality statistics, and also that the medi-

cal profession of the country has contributed largely to the securing of this relative completeness.

In order to obtain as much information as possible with regard to the amount and distribution of the actual deficiencies in the mortality lists, the entire registers of deaths of two States and several large cities for the census year have been copied, and will be compared with the mortality schedules furnished by the Census Enumerators from the same localities. The results of this comparison will probably be interesting and valuable.

An attempt has been made in the Tenth Census to obtain the number of the population on the 1st of June who are so sick or disabled as to be unable to pursue their ordinary avocations, and also to give the causes of such sickness or disability. This attempt has never been made before in this country; and in other countries has only been systematically made, as far as I am aware, in the three Censuses of Ireland for 1851, 1861 and 1871. It is too soon yet to speak of the results of this attempt, as the computations have not been made, but it is evident that either the returns will prove to be too imperfect to be of much if any statistical value or amount of sickness is much smaller than has been usually supposed. Taking the State of Rhode Island, where the Census was taken under the direction of a skilled superintendent, Dr. Snow, who had so small a territory to deal with that he could make sure of the knowledge and training of almost all his enumerators, and where it is to be presumed the population schedules have been filled out with the greatest accuracy and completeness. It is found by a count that the number reported sick and disabled, aside from those reported as blind, deaf and dumb, insane, crippled, etc., was a total of 3,276 out of a population of 276,528, being in the ratio of 11.8 per thousand. Comparing this with the results of the Irish Census of 1861, I find that the proportion of sick at their own homes reported in Ireland varied from 1 in 142 to 1 in 942 in the different localities specified, which is in the ratio of 7.04 and 1.06 per thousand respectively. It is usual to compute that for every case of death in a community there are two cases constantly sick.

It will be seen if the estimate is correct, the Rhode Island Census comes much more near completeness than that of Ireland. The only other source of comparison which I have thus far found available is that of the health of the army, in which I find that among the white troops for the year

1877, the average number constantly on the sick roll was 44 per thousand of mean strength.

In conclusion, I think the Association will be glad to know that the work of tabulating these returns of deaths is going on rapidly, and that the results will be published in a form which will be found more satisfactory than the forms heretofore used, because it will present the comparison of mortality rates of countries and groups of countries as well as of entire States. The importance of these mortality records is very great, because for very large portions of this country they give almost the only positive data we can get for comparison of the different localities; and because they will serve both as a pattern and an incentive for scientific work in this direction on the part of manufactures and States.

Questions of Privilege.—Dr. Lewis A. Sayre, of New York, asked that the minutes be so amended that it would appear that the protest which he entered against the resolution adopted in the Surgical Section, at the annual meeting in Chicago, 1877, relative to shortening in fractures of the long bones, was sent to the President of the Association and not to a Chicago newspaper as charged by Dr. Frank H. Hamilton in the last number of the *Medical Record*.

Dr. Hodgman, of New York, said that he had carried the message for Dr. Sayre, who was sick, and delivered it to the Secretary, who, in his presence, handed it to the President.

The Association accepted the explanation and granted permission that the amendment be made.

Dr. J. M. Keller, of Hot Springs, Ark., stated that at the same meeting he also protested against the resolution referred to, which was offered by Dr. Peck, of Iowa, and also presented his protest in writing, signed by Drs. E. T. Easley, Irvin Keller, and himself. No record of it appeared in the notes of the Secretary of the Section as published in the Transactions. He asked that those gentlemen and himself be placed upon the record correctly. Permission was granted to make the necessary addition to the proceedings to secure that end.

Report on Clinical Observations and Records.—The report of the Committee as presented by the Chairman, Dr. N. S. Davis, closed with the following recommendations, which were adopted:

1st. That a committee of five be appointed by the President of this Association, to be called the "Standing Committee on Atmospheric Conditions, and their Relations to the Prevalence of Disease."

2d. That said committee be authorized to select such representative places as will best indicate the atmospheric conditions in the more important climatic sanitary districts of the United States (to be not less than six nor more than twelve in number), and establish therein means for continuous observation and record of appreciable conditions of the atmosphere, according to the most approved methods, and of the origin and prevalence of all acute diseases.

The 3d resolution recommends, in determining the organic and other oxodizing elements of the atmosphere, the use of the Walline paper, as prepared by Schone; and for determining the presence and relative quantity of ammonia and other organic products, the use of the pumice-stone method recommended by Prof. Remsen, in his recent report to the National Board of Health.

4th. The committee require a full statement of the results of the work done at each station, on the 1st of January and July of each year.

5h. Appropriate $500 to carry out the purposes of these recommendations; a full statement of the amount received and expended to be reported at the next annual meeting.

Nominations, etc.—The following report was read by Dr. Stone, of Minnesota:

The Committee on Nominations organized by electing Dr. A. Coles, of Newark, N. J., Chairman, and Dr. A. J. Stone, of St. Paul, Minn., Secretary.

The following nominations were made:

For President, Dr. J. J. Woodward, U. S. A.

For Vice-Presidents, Drs. P. O. Hooper, Little Rock, Ark.; L. Conner, Detroit, Mich.; Eugene Grissom, Raleigh, N. C.; and Hunter McGuire, Richmond, Va.

Secretary, Dr. Wm. B. Atkinson, Philadelphia.

Treasurer, Dr. R. J. Dunglison, Philadelphia.

Librarian, Dr. William Lee, Washington, D. C.

To Fill Vacancies in the Medical Council, Drs. S. N. Benham, Pennsylvania; J. M. Toner, Washington; D. A. Linthicum, Arkansas; Wm. Brodie, Michigan; H. D. Holton, Vermont; A. B. Sloan, Missouri; and R. B. Cole, California.

St. Paul, Minn., was selected as the place for the next Annual Meeting; and Dr. A. J. Stone was appointed chairman of the Local Committee of Arrangements.

The report was adopted unanimously.

The Amendment to the Code of Ethics, which was continued from yesterday, was taken up.

Dr. N. S. Davis, of Chicago, being entitled to the floor,

proceeded to reply to the remarks of Dr. Dunster, in an able and lengthy argument, which was greeted with loud laughter and applause.

The discussion was further continued by Drs. Martin, of Boston, and Dunster, of Detroit.

Dr. Marcy moved to lay the amendment on the table indefinitely. The ayes and noes were called, with the following result: Ayes, 106; noes, 108.

The further consideration of the amendment was postponed until to-morrow.

The next business was the consideration of the following amendment to By-Laws, offered by Dr. J. M. Keller, of Little Rock, Ark., which was adopted:

"In the election of officers and appointment of committees by this Association and its President, they shall be confined to members and delegates present at the meeting, except in the Committee of Arrangements, Climatology and Credentials."

Adjourned until to-morrow at 10 A. M.

FOURTH DAY—FRIDAY, *May 6th.*—The Association was called to order at 10 A. M. by the President. Prayer by Rev. Dr. Charles H. Read, of the Presbyterian Church.

Committee on Clinical Observations and Records.—The following committee was announced: Drs. N. S. Davis, Chicago; J. M. Toner, Washington, D. C.; H. O. Marcy, Boston; Mass.; W. H. Giddings, Aiken, S. C.; S. M. Bemiss, New Orleans.

Amendment to the Code of Ethics.—Dr. Billings then offered the following substitute for the orignal, which was adopted:

"It is not in accord with the interest of the public or the honor of the profession that any physician or medical teacher should examine or sign diplomas or certificates of proficiency for, or otherwise be specially concerned with, the graduation of persons whom they have good reason to believe intend to support and practice any exclusive and irregular system of medicine."

Committee on Nominations.—This Committee reported the following additional officers, who were elected:

Section on Practice of Medicine.—Chairman, Dr. J. A. Octerlony, Louisville, Ky.; Secretary, Dr. Deering J. Roberts, Nashville, Tenn.

Section on Surgery and Anatomy.—Chairman, Dr. J. C. Hughes, Keokuk, Iowa; Secretary, Dr. William A. Byrd, Quincy, Illinois.

Section on Obstetrics.—Chairman, Dr. H. O. Marcy, Boston, Mass.; Secretary, Dr. C. V. Mottram, Lawrence, Kan.

Section on Medical Jurisprudence and State Medicine.—Chairman, Dr. A. L. Gihon, Washington, D. C.; Secretary, Dr. J. H. Sears, Waco, Texas.

Ophthalmology, Otology and Laryngology.—Chairman, Dr. D. B. St. John Roosa, New York; Secretary, J. Solis Cohen, Philadelphia, Pa.

Diseases of Children.—Chairman, S. C. Busey, Washington, D. C.; Secretary, Dr. William Lee, Baltimore, Md.

Dentistry.—Chairman, Dr. D. H. Goodwillie, New York; Secretary, Dr. P. W. Brophy, Chicago, Ill.

Judicial Council.—Drs. S. N. Benham, Pittsburg, Pa.; J. M. Toner, Washington, D. C.; D. A. Linthicum, Little Rock, Ark.; William Brodie, Detroit, Mich.; H. S. Holton, Brattleboro, Vt.; A. B. Sloan, Kansas City, Mo.; R. Beverly Cole, San Francisco, Cal.

Assistant Secretary.—Dr. Charles H. Boardman, St. Paul, Minn.

The report was then adopted as a whole.

The Honorarium to the Permanent Secretary, on motion of Dr. Grissom, was continued as last year.

Amendment to Constitution.—Dr. D. H. Goodwillie, of New York, offered an amendment to the Constitution, making provision that permanent members, as well as delegates, be entitled to vote. Laid over for one year under the rules.

Address in Ophthalmology.—Dr. Dudley S. Reynolds, of Louisville, Ky., Chairman of the Section, delivered his address, in which he referred to puncture of the drum-membrane as superseding the use of poultices, and the use of the hydrobromate of hematropia for the relief of headache dependent upon errors in refraction.

The Report of the Treasurer showed a balance in the treasury of $2,008.46, and the Treasurer repeated the conviction that the present rule of the Association, which allows permanent members to escape payment of annual dues two out of every three years, should be so amended as to make annual payment of dues obligatory.

The report was accepted, and referred to the Committee on Publication.

The Report of the Librarian showed that two hundred and seventy-three distinct titles had been added to the library during the year, and the Librarian asked that an appropriation of $200 be made for the binding and purchase of peri-

odicals such as cannot otherwise be obtained. The report also recommended that the Treasurer be authorized to subscribe $50 to aid in the publication of the Index Medicus.

The report was accepted and the recommendation adopted.

The Judicial Council reported concerning charges presented against the Nebraska State Medical Society, that the officers be duly notified of the same, to the end that they may have their defence ready for presentation on the first day of the next annual meeting. It also reported that it is contrary to the By-laws of the Association to hold patents, and that the communication submitted be returned by the Secretary.

The Report from the Section in Medicine contained a resolution by Dr. Martin, of Massachusetts, making provision for the appointment of a committee of *three*, whose duty it shall be to investigate as to where and by whom the business of *propagating bovine virus* is carried on, and report, if possible, at the meeting of the Association in 1882.

On motion of Dr. A. C. Post, of New York, the expense allowed was limited to $100, after which the resolution was adopted.

The report also contained the following resolution concerning *patents and trade-marks*, which, on motion by Dr. J. M. Toner, was referred to the Judicial Council for report at the next annual meeting:

"*Resolved*, That the spirit of the Code of Ethics forbids a physician from prescribing a remedy controlled by a patent; copy-right, or trade-mark. This, however, shall except a patent upon a process of manufacture or machinery, provided patent be not used to prevent legitimate competition; and shall also except use of a trade-mark used to designate a brand of manufacture, provided that the article so marked be accompanied by working formulæ, duly sworn to, and also by a technical scientific name, under which any one can compete in manufacture of same."

Report of the Committee on Social Position of Members of the Medical Staff of the Army and the Navy.—Dr. William M. Beech, of London, Ohio, Chairman, submitted the report of the committee, in which he asked that the committee be continued. In doing so, he argued that the principle of promotion which prevailed among army officers should prevail the same that it does in the other departments of the Government. While other officers of the army and navy were retired on half pay, surgeons who had been in service for years, do not have the same recognition. He showed that this principle extended to the judiciary as well.

Dr. J. M. Browne, United States Navy, suggested that the report was wrong in its title, complaining of the lack of social recognition of medical officers of the army and navy. He thought the matter of official recognition would ultimately right itself.

Dr. J. S. Billings, United States Army, concurred in what Dr. Browne said, and thought the subject had better drop.

Dr. Beech was willing to strike out the language relating to social recognition, but he thought some legislation should be enacted by Congress to secure equal preferment with other officers of the army and navy.

On motion of Dr. N. S. Davis, the matter was laid on the table.

Plan of Organization.—Dr. John H. Packard, of Philadelphia, offered amendments to the Constitution, contemplating changes in the plan of organization of the Association. Laid over for one year under the rules.

Delegates to Foreign Medical Societies were announced as appointed by the President, who was also authorized to add to the list as might be desirable.

After the usual resolution of thanks, the Association adjourned to meet in St. Paul, Minn., on the first Tuesday in June, 1882.

PROCEEDINGS OF SECTIONS.

DISEASES OF CHILDREN.

First Day—*May 3d.*—Chairman, Dr. A. Jacobi, of New York, N. Y.; Secretary, Dr. T. M. Rotch, of Boston.

The Relation Between Growth and Disease was the title of a paper by Dr. Henry I. Bowditch, of Boston, Mass. After discussing the various influences which must be taken into consideration in approaching this subject—such as climate, race, social condition, occupation and sex—he directed the attention to carrying out more extended observations on this subject, especially in the West, where the emigrant class, coming from different countries, present especial advantages for this kind of investigation. He also spoke of the intention of the Massachusetts State Board of Health, Lunacy and Charity to distribute blank cards and circulars of instruction to aid in this work; and it is probable that the National Board of Health will soon undertake a similar work on a larger scale. It seemed probable that the accurate determi-

nation of the normal rate of growth in children will not only throw light upon the nature of the diseases to which childhood is subject, but will also guide us in the application of therapeutic measures. The statistics of growth, taken in connection with those of disease, might very possibly reveal unexpected relations between periods of slow and rapid growth, and the age at which certain diseases most frequently occur. He referred to Dr. Percy Boulton's expression of "danger signal" in his paper on the weighing of children. Dr. Bowditch then exhibited a chart representing the case of a child, between two and three years old, where careful and systematic weekly weighing showed, first, the approach, by some weeks, of a chronic disturbance of nutrition, represented by enlarged cervical glands and clay-colored stools; and second, after recovery, the approach of an attack of measles, the "danger signal" of progressive loss of weight preceding the eruption by at least a week.

Dr. J. S. Billings, U. S. A., spoke of the value of Dr. Bowditch's paper, and presented to the Section the statistical cards intended for circulation by the National Board of Health.

Dr. Wm. Lee, of Baltimore, remarked that he had paid especial attention to this subject, and that he had noticed that a female child could lose more in proportion to its weight, without detriment to its health, than the male child of the same age. If the loss of weight preceding the eruptive disease was excessive, the case was so much more grave in its prognosis, and this loss of weight preceded this eruption by from four to five days.

The Relation of Metecrological Conditions to the Diarrhœal Diseases of Children.—Dr. S. C. Busey, of Washington, D.C., read a paper on this subject. He reached the conclusion, from the records of the observations of the Signal Service Bureau, that there were regular terms of heat, lasting for a certain length of time, and returning at certain intervals; and that at almost the same time, in large cities—of which he compared Washington, Baltimore, New York, New Orleans, Chicago, etc., and had reports from twenty or thirty other places—diarrhœal diseases returned. In addition, he had found that diarrhœal diseases were less frequent in New Orleans, where the heat was more permanent, than where it came on in exacerbations.

Some of the Causes of Infantile Eczema and the Importance of Mechanical Restraint in its Treatment, was the title of a paper by Dr. James C. White, of Boston, Mass. He first

described the many and varied external influences which immediately affect the delicate skin of the new-born, as being a common cause of eczema, and laid special stress on the fact that heat was the more usual cause of the disease than cold. He said, however, that these external influences furnish but a small proportion of all the cases of the disease which occurred at this period of life, although by far the greater part of those concerning the etiology of which we have any positive knowledge. During the last twelve years he had treated at the Massachusetts General Hospital 5,000 cases of eczema, of which 1,770 occurred in children of ten years of age and under, and of which the largest proportion, viz: 569 cases, was in the first year of life. Eliminating the operation of the causes directly acting upon the skin from without, above mentioned, and a few other extraneous agencies, the parasitic chiefly, he did not hesitate to say that he knew nothing whatever of the causes of the disease in the remainder; also, that as far as his experience went, eczema affected all classes of society alike, occurred at all seasons of the year, came in children of all degrees of health, in the perfectly sound as frequently as in the feeble; that it had no necessary connection with any other disease of childhood; that it showed itself in equal proportion in bottle babies and those reared at the breast, and was independent of diet; also, that if there were other assigned causes, he would here say that his observation gave him no justification for believing any of them. There was no more necessity for a supposed sympathy with or dependence upon the state of the blood, or the condition of some other organ, when the skin is affected with eczema, than when the lung, kidney, etc., is affected. He then, after speaking of the extreme suffering which the little patients undergo, said that the prime factor of the treatment was the prevention of scratching, and he described what he considered to be the proper method of controlling the child's movements, viz: a system of swathing in a pillow-case, by which the same chances of success in the therapeutics of infantile ezcema is given as exist in the adult. When the strait-jacket treatment is carried out, the child soon becomes used to the confinement, and a wonderful improvement takes place, not only in the disease itself, but in the *morale* of the family, which always becomes painfully disorganized during the existence of the disease. An important factor in the success of the treatment: a grandmother (if present), in every case of infantile eczema, is the first evil to be eliminated. The simple mechanical means found in every

household included all that was important in the treatment of this distressing and rebellious disease of infancy.

Dr. L. Duncan Bulkley, of New York city, regretted criticising the paper as he felt obliged to do, in the absence of his friend Dr. White; but the views presented differed so radically from those which he had formed from experience that he could not help so doing, because he felt that the subject demanded it. For those who did not know of his acquaintance with the disease, he would state that he had recently made analyses of 2,500 personal cases of eczema, and of these nearly 700 had occurred at an age which classed them as infantile eczema: he therefore believed that he could speak with authority on the subject. Dr. White had, it is true, treated of only one feature in the management of the disease, namely, physical restraint, but he believed criticism to be called for because of the principles which underlie, or which call for this element of treatment; the premises being wrong, what follows must of necessity be wrong.

The speaker believed that Dr. White here, as elsewhere, laid far too great stress upon local causes of eczema, and ignored entirely the influence of internal, general, dietary and hygienic causes; if these are not recognized and managed, the results of local treatment are imperfect and uncertain. He did not believe that children with infantile eczema were really in perfect health, but that always the evidences of imperfect assimilation could be discovered: the evacuations from the bowels were faulty, the urine constantly presented evidences of mal-assimilation, and searching investigation would always demonstrate imperfect health in the child. In nursing children, the mother should always receive very careful attention, as very commonly she would exhibit dyspepsia, or constipation, or perhaps is taking ale, beer, much tea, etc., which disagree and cause trouble in the child; or perhaps she is very much debilitated.

The subject could not be fully entered into here; the speaker expected to read a paper, on "Diet and Hygiene of Eczema," before another Section at the present meeting. He was, however, absolutely convinced of the importance of this matter, and that if attention was thoroughly paid to it, much less would be required locally, and what was used would be more rapidly and completely successful.

Internal treatment to a certain degree was also absolutely necessary. And without it, physical restraint, as any local treatment, would be comparatively ineffective. This could not be discussed here, but he would only mention in illus-

tration the internal use of small purgative doses of calomel, every other day, and a mild alkali, acetate of potassa in liquor ammoniæ acetatis, with a little nitre and perhaps aconite. Individual cases required very different management.

In regard to the method of restraint proposed in the paper, he had never employed such restraint, simply because he had never found it necessary. If the itching is relieved, the restraint is not required, because the habit of scratching is soon overcome when the infant finds that a proper application gives relief. If the itching is not relieved, such confinement is torture beyond any description, judging from the statements of older patients, who cannot abstain from scratching by any force of will, and who assert that they would scratch if they died from it. The agony of little ones mechanically restrained is fearful to see.

Dr. White had mentioned the use of diachylon ointment. This Dr. Bulkley very rarely employed in infantile eczema, as he believed it very inefficient in arresting itching. Tar in some form was far more efficacious; indeed, he had little to desire in the way of an application to infantile eczema beyond the following ointment: ℞.—Unguenti picis, ʒj; zinc. oxid., ʒij; unguenti aquæ rosæ, ʒiij. Mix. This should be very carefully prepared and very thoroughly and abundantly applied. If it appears stimulating, less of the tar ointment may be used. He laid great stress upon employing the rose ointment, and not simple cerate, or lard, or vaseline, or petroleum. The ointment should be made of a consistency to spread easily, and yet not melt away after application.

Dr. White had spoken of removing the restraining bands, in order to wash the surface. Dr. Bulkley was very positive in the directions given in regard to the use of water on eczematous surfaces in children; they were only to be washed according to direction, and that very rarely—often only at intervals of several days. Moreover, it was all-important that the protective ointment should be replaced *immediately* after the surface is dried, and renewed sufficiently often to keep the parts completely protected, even twenty or more times the first day. On covered parts, the ointment may be thickly spread on the wooly side of sheet lint and bound on. Among the hundreds of cases referred to, the speaker had never covered the face with a mask, and had rarely been obliged to restrain the infant much after the first day or so. The only restraint he had ever practised was putting on muslin mittens, tied around the waist; and then tapes from these were passed behind the back or beneath one leg. He had

never employed a mask. Under the management thus briefly indicated, if every point could be carried out, there was but one result—arrest of the eruption; and if dietary and hygienic elements were persisted in, a cure of the disease. The attention to the mothers of nursing children he considered most important.

Dr. W. B. Ulrich, of Chester, Pa., said he fully agreed with Dr. Bulkley, and that he entirely opposed Dr. White's treatment. In a long professional career, he had never used a system of restraint in these cases, and that he would prefer to knock the little patient on the head at once rather than submit it to the tortures of Dr. White's straight-jacket.

Thumb-Sucking.—Dr. D. H. Goodwillie, of New York city, reported a case and illustrated it by a wax model. The treatment consisted in breaking up the habit by applying a leather pad to the elbow, preventing the hand from coming to the mouth; and nasal catarrh is to be treated by douches and the application of powder blown into the nose, proper food, clothing and rest. His conclusions were as follows: (1.) Thumb-sucking is more disastrous to the health of the child than the sucking of the other fingers; for the thumb, once in the mouth, it more readily remains during sleep. (2.) It interferes with the child's proper rest, which should be continuous and undisturbed, and so becomes a source of nervous irritation and exhaustion. (3.) It interferes with the natural respiration through the nose, and sets up abnormal conditions. (4.) It malforms the anterior part of the mouth and affects proper mastication.

Second Day—*May* 4.—**Eczema.**—Dr. A. Jacobi, of New York city, Chairman of the Section, spoke of the discussion on *Eczema* which had occurred at the last meeting. He supported Dr. White in controlling scratching by mechanical measures. If scratching was prevented, children would recover as easily as adults, and although the procedure was somewhat severe, still the mother and nurse would be saved a great deal of trouble. The mask for the head had proved very serviceable in his hands. As regards Dr. Bulkley's views, he thought the constitutional causes were nothing more than what we have in any affection. He agrees with Hebra, that no water should be used. Very rarely, and in special cases, the judicious use of water may be of service. The main point is to remove the scabs. For this purpose potash soap, very soft, may be used; or solution of caustic potassa, with ten or twelve parts of olive or castor oil, can be applied twice, three, four or five times a day, and will pro-

duce remedial effects very quickly. The surface left exudes the serum, which hardens and forms the scab. This serum must be touched and taken up with a soft towel, and finally astringents are applied to the raw surface. These applications can be made to please the fancy of the physician. Zinc and diachylon plaster are both valuable. A number of cases will not be cured, and then we must resort to constitutional treatment. The milk of the nurse must be rendered digestible, and it will be found that many children will thrive better on artificial food than on the milk of the mother or nurse. A good general condition of the system must be obtained. To say that an eczema can be cured forever, is perhaps going too far, for we see cases repeatedly coming under our observation as cured. Just as in insane asylums, we notice cases that are published several times as "cured," so it may be in eczema or any other intractable affection.

Treatment of Diphtheria.—Dr. Jacobi, in the absence of Dr. R. J. Nunn, of Savannah, Ga., read a paper prepared by the latter-named gentleman on this subject. Dr. Nunn said the disease had raged in Savannah with very fatal effects, and a letter from a friend elsewhere said that after treating 600 or 700 cases, his faith in the efficacy of drugs was very feeble. The causes will probably remain speculative for a long time. Is the disease the same always and everywhere? The causative influences are probably not the same in all cases. Medicines which cure the disease in Germany fail in this country; and the discussions as to the identity of croup, diphtheria and scarlet fever are strong arguments in favor of this belief; and all treatment based upon one cause must fail to relieve all cases. Dr. Nunn quoted Dr. Jacobi as saying: "The entrance of the diphtheritic poison into the system is not the same in all cases." . . "There are cases in which the origin of the disease is decidedly local." . . "There are others in which the poisoning of the blood through inhalation is the first step in the development of the disease." A powder used by Dr. J. B. Read is as follows:

℞. Sulphur sublim.....grs. xlviij
Acid tannic.....grs. xij
Acid salicylic.....gr. j
Pulv. potass. chlorat.....grs. xij

Precaution must be used in compounding this prescription. A little of this powder is put on the back of the tongue every hour or two, and a small piece of ice given afterwards. It will be seen that this prescription is a combination of antiseptics principally. In a case treated by Dr. Nunn, the following formula was used with good effect:

℞. Sulphur sublim..... .....grs. viij
Acid boric.....grs. iv
Acid benzoic.....gr. j
Acid salicylic.....gr. j
Acid tannic.....gr. j
Acid tartaric.....grs. iv
Sodii chlorid .....grs. iv
Resorcin.....gr. j ℳ

Dr. Nunn thinks that this formula will prove efficacious.

Dr. M. C. Lathrop, of Dover, N. H., has experimented with chloroform largely, and finds it a highly useful agent. He uses it in diphtheria and other throat affections on a piece of cotton attached to a tube or pen-holder. The cases usually required visiting no longer than four days, but the cases were not so malignant as had been reported in other localities. No unpleasant effects have followed this plan of treatment, and the child, in true diphtheria, does not complain of *smarting* from the application of chloroform.

To a question from Dr. Jacobi, Dr. Lathrop said that he had used this plan of treatment in one hundred cases. Of course, constitutional measures are added.

Dr. William Lee, of Baltimore, has used equal parts of tinct. ferri chlorid. and ol. ricini, with benefit. He considers the disease as local at first, and then constitutional. A physician from his county had used large doses of ol. copaiba with benefit. An emetic was then given to remove the membrane.

Dr. G. Vivian, of Alexandria, Minn., has used, in severe epidemics, alcohol as an inhalation, and has employed as much as a quart of alcohol a day. He has never seen any constitutional effects ensue.

Dr. J. McNeal, of Gettysburg, Pa., recommends the following:

℞. Potass. bromid.....ʒj
Potass. chlorat.....ʒij
Acid carbolic.....grs. xx
Aquæ.....⊙j

M. Use in an inhaler.

Locally, chloroform ʒij, lin. saponis ʒj—ʒij.

Dr. F. E. Hitchcock, of Rockland, Maine, uses equal parts of sulphurous acid and water in an atomizer. The proportions can be varied, and the acid used as a gargle. Cold affusion externally.

Dr. Jacobi, in answer to an inquiry concerning the benefit of pilocarpin, said that his opinion of it was unfavorable. It

was proposed as a specific by a Dr. Guttman; and while on this subject, he would state that this gentleman was not Dr. Guttman, of Berlin. The article on pilocarpin had struck him as nothing more than an advertising arrangement. In diphtheria there are two forms—one in which the deposit can be readily separated from the mucous surface beneath, and one in which the deposit is deeply imbedded in the lower structures. In the latter form, Dr. Jacobi believes that pilocarpin does harm, and in one case he thinks that death was hastened by using this drug. Pilocarpin debilitates the heart's action by giving rise to nausea and vomiting. The milder cases of diphtheria recover, as a rule, if left alone; and in all cases of the disease he thinks the utility of pilocarpin doubtful. The paper in which pilocarpin was recommended as a specific is not satisfactory as regards the description of the cases treated; and to say that this and that remedy is a specific, is certainly not dignified. If the remedy be used at all, a fluid extract is the best preparation, as the muriate of pilocarpin is decomposed in the stomach.

Dr. Jacobi, also, in answer to a question from Dr. Lee, concerning the effect of lime, said that his opinion of this agent was not so high as that of many writers, but that he would speak more fully of both lime and pilocarpin in his article on this subject.

Resection of the Tarsus in Severe Cases of Club-Foot.—Dr. E. H. Bradford, of Boston, read a paper on this subject, of which the following is a summary: He first reviewed the literature of the subject, and then reported two cases on which he had operated. The first case was a girl of eleven years old, with severe equino-varus—the axis of the foot being at right angles with that of the leg. Tenotomy and mechanical treatment were tried for a month, with but slight benefit. Dr. Bradford removed a wedge-shaped section of bone from the tarsus with a metacarpal saw, and, with antiseptic precautions, there were no constitutional symptoms after the operation, excepting that the temperature rose once to 101°, being otherwise normal during the recovery. The wound healed under the blood-clot, as occurs with a thorough antiseptic dressing, and in five weeks the patient was able to walk without a cane. She remained in the hospital for some time under observation, and was discharged with the foot nearly in a normal position. The second case was a boy thirteen years old, with double congenital club-foot of aggravated type. The first foot was operated on, November 9th, and was sufficiently well to bear his weight by December

12th, and was entirely healed by January 19th. The second operation was performed January 9th, and by February 4th he was allowed to walk on both feet. He remained under observation until April 2d, when he could walk a mile without apparatus and wearing ordinary shoes. The temperature rose to 102° on the second day of the first operation, but fell to the normal on the next day, and remained so. After the second operation, on the third day the temperature rose to 104°, but fell after removing the drainage tube, which was stopped, and there was no subsequent rise. The plaster of Paris bandage was made use of after the operation. Dr. Bradford then described minutely the after-treatment in this case, and stated that there remained, after recovery, about 30° of motion, and that the boy could stand on either foot, or raise himself on his toes.

In regard to the antiseptic precautions, Dr. Bradford thought they offered the best safeguard, and that it must be admitted, a study of the reported cases justifies the impression that the danger is not so great as has been supposed.

Dr. Jacobi remarked, that Dr. Bradford's cases, as shown by the casts, could not have been successfully treated without just such a procedure as Dr. Bradford had adopted.

THIRD DAY—*May 5th.*—**Middle Ear Diseases in Children in the Course of the Acute Exanthemata.**—Dr. C. J. Blake, of Boston, presented a paper on this subject. He first spoke of the frequency of the disease, as shown by the facts that 35.70 per cent. of all the cases of purulent inflammation of the middle ear occurring at the Massachusetts Charitable Eye and Ear Infirmary, followed measles and scarlet fever, and of deaf mutes examined by the writer, 27.70 per cent. lost their hearing as the result of scarlet fever. In both exanthemata, the inflammation affects the mucous membrane, lining the middle ear. It occurs during the acute stages of the primary disease, and runs its course quickly; hence its importance to those having to deal with diseases of children. Much might be done in the early stages to diminish the severity and shorten the duration of the inflammatory process, which in children, owing to the greater vascularity of the mucous membrane, and the readier solution of continuity of the tissues, favoring ulceration, is usually more rapid than in adults. In scarlet fever, the aural complication may occur at any time; it usually runs its course rapidly, and furnishes in a short time a well-marked acute purulent inflammation of the middle ear. In measles, there are two types—one occurring early, and corresponding to the acute catarrhal

inflammations following "head-colds;" the other originating primarily in the membrana tympani, and accompanying the appearance of the facial eruption. The symptoms in that form occurring during scarlet fever are: rise in temperature, pain at first occasionally, then constant, in very young children, shown by moaning, unrest, and a desire to press the affected ear against the pillow. These symptoms are, of course, due to increased pressure within the tympanic cavity from serous exudation, as is shown by the relief afforded by the use of Politzer's method and douche, permitting the escape of a part of the fluid. The continuous pain later is often not similarly relieved, either because of serous effusion of the membrane itself, or more complete closure of the Eustachian tube. Nature usually relieves the pressure by a spontaneous opening, but only after prolonged suffering and prostration on the part of the patient, or possibly serious injury to the transmitting structure of the middle ear. The opiate treatment is superficial. In the early stages, frequent gargling; and if pain is complained of, the air douche should be used frequently. Instillations of warm oils and poultices are objectionable, as they interfere with subsequent operative interference; if necessary, glycerine and warm water, two or three parts to one, and a dry cloth over the ear, are better. In a later stage, if pus is present, the evident remedy is puncture of the membrane at its most prominent portion with a lance, suture needle or sadler's needle.

Dr. Blake then spoke of measles. In the first form, the remedies referred to in the early stages of scarlet fever are equally applicable here. If they fail, acupuncture and drainage are preferable to paracentesis, which may be done with a needle, and then a wick inserted, which serves the double purpose of withdrawing the serous fluid, and keeping the lining of the canal dry. Syringing should only be resorted to when the discharge becomes muco-purulent.

The second rare form is characterized primarily by a congestion of the membrana tympani, without congestion of the tympanic mucous membrane, and is not relieved by the use the air douche. It is due probably to inhibition of the vasomotor nerves controlling the tympanic branch of the carotid artery. These cases either resolve spontaneously, or the conditions described in the first type of inflammation of the middle ear become established. Instillation, dry warmth and acupuncture, may be resorted to with good effect. For general treatment, the bromides are especially indicated.

Dr. Jacobi remarked that closing the mouths of infants

and children, and simply blowing into the nose, is often a very valuable method of relieving severe earache; and that in a number of cases he had obtained most excellent results from this procedure—the cause of the trouble probably being a catarrhal affection of the Eustachian tube.

Address on Diseases of Children.—Dr. A. Jacobi, of New York city, Chairman of the Section, on account of the crowding of business on the last day of the session, preferred to present his address to the Section rather than to the general session to-morrow. His remarks were confined to the *progress made in our knowledge of the acute contagious constitutional diseases (rubeola, scarlatina, variola and typhoid fever) and the acute contagious affections of the mucous membranes, such as dysentery and diphtheria.* The literature of the subject during the past year was given, embracing text-books, atlases and monographs. "Evidently the latest contributions to our knowledge of rubeola give weight to its classification amongst the acute contagious constitutional affections." * * * "The description of the symptoms varies a good deal with the authors. These differences are best explained by the fact that mild cases of either measles or scarlatina may not present all their usual symptoms, and by the other fact that during the prevalence of an epidemic of rubeola there is, as a rule, a contemporaneous epidemic of measles and scarlatina, and also diphtheria." In such times, cases of common nasal, pharyngeal and laryngo-tracheal catarrh are very frequent indeed. Thus it happens that there are many symptoms belonging to the mucous membrane of the digestive and respiratory tract which invariably complicate the slightest other affections. Thus it is, also, that many authors have looked upon these accidental complications as if they were genuine symptoms. The very best authors—for instance, Gerhardt—when they mean to describe roseola, depict mild or sometimes even several cases of measles. Nasal catarrh, conjunctivis, facial œdema, glandular swelling belong to this class of symptoms, which, while they often occur in rubeola, do not belong to it by any means. The disease is very contagious. Its incubation lasts from two to three weeks, and is not attended with any fever. Now and then there are, during a period of from twelve hours to two or three days, prodromata, a mild increase of temperature, sometimes a catarrh of the mouth. The tongue is apt to show a few red marks along the margin, mainly in its anterior portion. The eruption, according to what I have seen, does not—contrary to Gerhardt's observations—begin in the face,

but on the trunk, or more frequently on the extremities, mostly on the thighs and knees; head and feet are not often affected. It looks very much like that of measles, sometimes not rising above the level of the skin, sometimes, however, rising above it in the manner of an urticaria. It seldom lasts longer than three days, but relapses on the fourth or fifth day are frequent. Desquamation begins early, now and then on the third or fourth day. Relapses may take place while desquamation is undisturbed in some localities. The temperature seldom exceeds 102° or 103°; becomes normal about the fourth day. The prognosis is absolutely good, and the treatment either none at all, or expectant. The diagnosis, however, may be very difficult, and even impossible in an individual case, inasmuch as scarlatina, and particularly measles, are apt to be rife at the very periods of the rubeola epidemic, and their symptoms are complications too mild to be estimated at their full value. This fact, however, does not militate against the independent nature of rubeola, for it has never claimed that either measles or scarlatina can and must be recognized in every instance.

Speaking of *diphtheria*, Dr. Jacobi said in regard to large doses of chlorate of potassium, often recommended in diphtheria, his warnings have at last been heeded. Extracts from his writings on this subject have been extensively published; and experiments on animals, made in Europe by Marchaud and others, have proved my clinical observation of the frequent occurrence of fatal nephritis, resulting from the incautious use of the potassium chlorate. It may be that much carelessness on the part of the public and many accidents will be avoided in future.

In the article on *typhoid fever* the writer says: "Whenever circulation is deficient, particularly when the patients have been anæmic at the onset of the disease, when, after the cool bathing, the feet do not get warm as quickly as the rest of the body, the end for which the bath was given is not attained. In order to reduce the temperature of the body permanently, it is necessary that the circulation of the skin be restored very soon, and uniformly. If such be not the case, no radiation from the external surface of the body can take place, and an undue amount of heat is retained within the body. It may then occur that the surface is quite cool while the temperature in the rectum is very high. In such cases, in order to reduce the temperature, I have had to plunge the patient into hot water for the purpose of restoring cutaneous circulation. When, in such patients, cold water is to be

used, the only proper mode of applying it is by packing or sponging. Care must be taken that only the trunk, beside the head, is made the subject of local treatment."

In the recurrent cases of measles to which he referred, Dr. Rotch said that reliance was not placed on the eruption alone, but on the general course of the disease, namely, a regular prodromal stage with coryza, conjunctivitis, and bronchial catarrh followed by a characteristic eruption and a stage of desquamation, and that as these cases had been met with and reported by competent observers, there was no more reason why they should not be called a second attack of measles than when the same symptoms occurred in a patient for the first time.

Dr. Atkinson, of Baltimore, had undoubtedly seen numerous cases of recurrent measles.

Dr. Stiles, of New York, had seen cases where true measles had attacked the same children twice.

Dr. G. McDonald, of Monroe, W. Va., considered that the cases spoken of by Dr. Stiles were merely relapses of the original disease.

Dr. Jacobi agreed with Dr. Rotch that the term rubeola should be used for this disease, which simulates measles—roseola being something different, as in typhoid fever. He had frequently seen cases where what he considered the symptoms of true measles had occurred, and an exact recurrence of these symptoms years afterwards. He called the second attack true measles, and considered that measles could recur two, three or four times; and he would beg leave to repeat the old story: "It eats like a toad, it looks like a toad, it creeps like a toad; hence why not call it a toad."

Dr. Adams, in referring to Dr. Jacobi's remarks regarding the great contagiousness of measles, described the admirable method of isolation in these cases in the Children's Hospital in Washington.

Dr. McDonald, of West Virginia, said that he had recently treated a large number of cases which differed in some respects from rubeola. He called it roseola, and the name became very popular with those who had the trouble.

Dr. H. G. Leigh, of Petersburg, Va., reported *two fatal cases of poisoning from chlorate of potash.* The first was a child, three years of age, with diphtheria. The mother gave the child chlorate of potash ℥ss, and the child died within 24 hours. The second case was a child five years, with croup. It took ℥vj of chlorate of potash in 24 hours; cyanosis appeared in 6 hours; hæmaturia and death in 48 hours.

Dr. Potter remarked that in quite a large number of cases in his practice he had met *rubeola and diphtheria occuring together.*

Dr. Jacobi had no doubt but that a number of deaths had occurred from chlorate of potash. When the blood is examined the corpuscles are broken up and irregular, and there is conglomeration of hæmatin. There is no positive poisonous dose; ℥iiiss given for five or six days killed a robust boy of fourteen years. Dr. Jacobi had taken himself half an ounce, and this dose was followed by frequent micturition.

Dr. A. W. Fontaine, of New Canton, Va., knew of a patient who took ℥j and died.

Dr. Jacobi does not give more than a grain to a child under one year, and ℥j to an adult in twenty-four hours.

Dr. Rotch stated that during the epidemic lately prevailing in Boston, measles had been observed to occur not only twice, but three times in the same person.

Dr. Wm. Selden, of Norfolk, Va., in a long professional career, had never seen measles recur.

Dr. Wm. Lee, of Baltimore, expressed surprise at Dr. Rotch's statement. In his opinion, true measles never recurred. Where a second attack was apparently present, close investigation showed that it was the diagnosis which was at fault, and that the eruption, although simulating that of measles, was really that of the roseola spoken of by Dr. Jacobi. He inquired of Dr. Rotch whether he could distinguish the eruption of measles from that of roseola, and from the eruption which apparently followed certain articles of diet, as crabs?

Dr. Rotch answered that he would first say, in order that there should be no confusion of terms, that there was a true measles and a rubeola (the *rothëln* of the German writers), as stated by Dr. Jacobi; and that so far as the eruption was concerned, it was often impossible to make a distinction; second, that roseola, which was usually a popular eczema, had nothing to do with other diseases, and that in the great majority of cases the eruption caused by eating crabs was that of urticaria, which of course was easily distinguished from the eruption of measles; third, that he would again state that undoubted cases of true measles had been observed in Boston, where the disease is well recognized and differentiated from rubeola.

SECTION ON OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

First Day—*May 3rd.*—Chairman, Dr. Dudley S. Reynolds, Louisville, Ky.; Secretary, Dr. S. M. Burnett, Washington, D. C.

Perimeter.—Dr. G. T. Stephens, of New York city, read a paper regarding a perimeter, invented by himself, for measuring the field of vision. He described the instrument minutely, remarking that most of the instruments hitherto used are very large, weighing a good many pounds, and consequently inconvenient for using. His instrument removes some of the difficulties.

Dr. H. A. Wilson, of Philadelphia, wished to know whether Dr. Stephens' method was superior to the old plan, and whether any comparative measurements had been made. Dr. Stephens said he had discontinued the old methods, and was thoroughly convinced of its efficacy, but that no measurements had been made.

Nasal Catarrh with Hypertrophy.—Dr. W. C. Jarvis, of ———, remarked that the persistence of the disease is due to hypertrophy of tissue. This must be removed, and instruments are necessary to effect this result. The écraseur is the same instrument described in the *Medical Record*, April, 1881. The wire used is very fine, but exceedingly strong, and made of the best steel. The transfixion needles are provided with metal handles, and are made of various sizes. The simpler forms of hypertrophies can be removed with the écraseur alone, but sessile growths require both. All degrees of hypertrophy can be removed by these instruments. In one patient who had not breathed through the nose for fifteen years, and in one who had never breathed at all through the nostril, the relief was almost immediate. All kinds of nasal growths can be reached by the instruments, and there is no use of resorting to caustics, cutting and the galvano-cautery.

Dr. Eugene Smith, of Detroit, wished to know if nasal respirations were immediate, and also how long a mechanical trouble could last without producing organic change.

Dr. Jarvis stated that he was simply stating the fact as it stood; that the patient was not completely deaf, but that he had to be spoken to in a loud tone of voice.

Dr. Joseph A. White, of Richmond, Va., said that he had used the instrument mentioned by Dr. Jarvis, and had obtained excellent results. In one case, in which the hearing

was only $\frac{2}{50}$, the result was such as to produce perfect hearing in one side, and partial hearing on the other side, where organic trouble was added.

Dr. W. H. Daly, of Pittsburgh, Pa., said the instrument was a very useful one. In his experience, deafness of greater or less degree has often been relieved by removal of nasal growths, and that, too, without treating the deafness at all. If the "central trouble" or hypertrophy be remedied, the result will be good. The galvano-cautery, used for a few moments at a time, is an excellent means of removing the growth in some instances. The finger is introduced into the pharynx as a support and protection. In some cases glacial acetic acid answers well as an application to the stump after the removal of the growth with instruments. Cases under his care have been watched for years, and have progressed favorably. In one case, in which sessile growths were present, these were removed with the galvano-cautery, heated to a mahogany or cherry-red. The apex of the growth disappears, gradually becoming hollowed out and sound; normal structure is left. The surrounding structures are not injured.

Dr. Rigsby wished to know to what extent deafness is due to anterior nasal catarrh.

Dr. Jarvis said that the extent was undetermined, but that the pharyngeal trouble is secondary to the anterior disease. The acrid secretions of the part flow backwards and irritate the healthy mucous membrane. A mild astringent injection may sometimes give rise to the pharyngeal disease, and it is highly probable that the secretions of the part diseased can act in the same way.

Dr. Rigsby said he had been struck, after a long experience, with the connection between aural and nasal diseases. Deformities in the vomer and turbinated bones produce trouble in the ear, after giving rise to hypertrophy, and sometimes ulceration in the nose. Deflection of the vomer to one side is one deformity giving rise to ear disease. Operative interference is not often needed. Iodoform, with alum or acacia, is an excellent application. In other cases, where no deformity exists, the rhinoscope will reveal a group of enlarged glands. These give rise to a viscid secretion which irritates the surrounding structure.

The Chairman remarked that the predisposing causes are very important, but had not been discussed. Do cases of cured catarrh stay well? and is not the local trouble secondary to constitutional causes?

Dr. W. T. Little, of Philadelphia, remarked that traumatic causes must be considered. He had seen a child strike its nose and have catarrh. This occurred in a healthy person.

Dr. Jarvis then said that two causes of catarrh must be considered—a local deformity or hypertrophy, and an atonic condition of the system. A distinction should be made between temporary and permanent stenosis. Deflection of the vomer always causes catarrh. These cases get worse as the patient grows older. In some cases the bones have been crushed, but this treatment is to be condemned. The instrument exhibited by himself would, he thought, answer every purpose.

Dr. Carter said that one great cause seemed to him to be the change from the impure hot air of a room to the cold air without, and advises his patients to place a piece of cotton in the nostril on going into the open air. The oxide of mercury he has used with a great deal of benefit. The great point is the recurrence of the trouble, and it does frequently recur.

Dr. Daly thinks that a fair proportion of cases depends upon a constitutional defect, but many of those are pharyngeal catarrh. Subjects with slow and bad digestions are liable to this form. A smaller per cent. of nasal troubles are constitutional. The majority are in excellent health, and we must look upon the nasal disease as the result of repeated colds in the head. In such cases, temporary stenosis takes place; this is relieved, but a slight thickening is left, which is increased by each subsequent attack. Subsequently nervous tone is impaired and vascular action interrupted. The best way to deal with the patient is to tell him that the trouble can be cured, but that it will recur if he catches cold again. Of course, he should consult a physician in that case, and be treated again. Dr. Daly has often seen the constitution improve after local relief.

Dr. Stephens said that the gentleman was mistaken, he thought, if the majority of these cases was referred to local causes. Certain people are predisposed to colds and catarrh. Why is it? We must try to find out. Reflex irritation, as, for instance, uterine disease may predispose to catarrh. An accumulation of cerumen in the ear, or diseases of the eye, can produce the same result. All such causes should be removed.

Treatment of Conical Cornea was the title of a paper read by Dr. J. J. Chisolm, of Baltimore. He said that it is a pertinent question how to get the projection back. Suggestions

had been made of cutting out a piece of the cornea and bringing the surfaces together. After reading a French article on puncture of the cornea with a needle heated to redness, he determined to put it into practice. A case of exophthalmic goitre, with a complication of eye troubles, was selected; objects could not be distinguished one foot off. No anæthetic was given, and the needle was thrust suddenly through the cornea. The anterior chamber was immediately emptied; no pain was felt; and atropia and cold water were used. There was no inflammatory action. As soon as the eyes were opened, the patient read at six feet. The same operation was used on the right eye, and eight months afterwards the cornea was perceptibly flattened—sufficiently so as to admit of an iridectomy.

Dr. J. P. Little, of New York city, said that he had assisted Dr. Noyes, of New York, in a case of conical cornea, where tapping was resorted to. The result was highly satisfactory.

Second Day—*May 4th.*—**Syphilitic Laryngitis.**—Dr. Carl Seiler, of Philadelphia, Pa., stated that the affection could be diagnosed from non-specific inflammation by the peculiar discoloration of the mucous membrane and the symmetrical disposition of the inflammatory patches. There are frequent ulcerations of the larynx, which may be divided into shallow ulcers, in nothing differing from those seen in catarrhal laryngitis, and deep ulcerations, which were, in the author's opinion, due to the breaking down of the smaller or larger gummata in the mucous membrane. He also stated that a diagnostic sign of syphilitic laryngitis was seen in the red lines upon the velum palati. Beside the systemic treatment, with iodide of potassium and mercury, and supportive, with tonics, etc., touching of the shallow ulcers with solid nitrate of silver fused upon an aluminum probe, and the deep ulceration with acid nitrate of mercury (1 to 4), or the galvanic cautery, will be found serviceable.

Dr. D. S. Reynolds thought constitutional treatment would do more good than any local measures. He was surprised at the statement of Dr. Seiler, that the diagnosis of the simple form of syphilitic laryngitis was difficult. He did not believe that catarrhal inflammation could produce ulceration. There were three kinds of syphilitic ulcers, viz: (1) Those with inflamed base and everted edges; (2) Pale or gray base, with irregular margin and sharply defined scarlet areola; (3) Ulcer wholly unaccompanied with any evidences of inflammation, with sharply defined outlines and gummatous deposits sur-

rounding the margin. Local applications could do no good, unless restricted to such remedies as would relieve pain. While not doubting the correctness of Dr. Seiler's observations, he differed with him in his diagnosis.

Dr. J. A. Stephens, of Hartford, Conn., thought the treatment much more satisfactory when both local and constitutional remedies were employed. He used nitrate of mercury (1–4) locally, with the internal administration of potassium iodide.

Dr. Ralph Walsh, of Washington, D. C., thought too much prominence was given to iodide of potassium. The shallow ulcer corresponded in its time of appearance with the mucous patch of syphilis, and the deeper ulceration with the tertiary stage. He always found enlargement of the cervical glands in specific laryngitis. He employed mercury internally, especially in the shallow ulceration, and iodide of potassium in the deeper forms. He thought Dr. Reynolds wrong in neglecting local medication, the combination of the local and constitutional treatment giving better results. Of the modes of administering mercury, he preferred inunction. Treatment should be supporting.

Dr. Seiler thought catarrhal inflammation could produce ulceration. The infiltration of the sub-mucous tissue could break down and produce ulceration. He had taken it for granted that any physician would employ constitutional treatment. He claimed that local treatment lessened the amount of cicatricial contraction. The application of caustic served to coat over the ulcer and protect it. There was an involvement of the cervical glands often in non-specific laryngitis, while it was not a constant symptom in the specific form. He based his diagnosis mainly upon the carmine color of the muaous membrane and the symmetrical arrangement of the ulcers. If there was an ulcer upon one side of the larynx, there would be found a corresponding ulcer or focus of inflammation on the other side. He attached much importance to the red lines upon the velum palati, which were sometimes brought out by the irritation of an examination.

Tinnitus Induced by a Rhythmical Contraction of the Tensor Tympani Muscle.—Dr. J. J. Chisolm, of Baltimore, read a paper on this subject, which was brought to his notice by a muscular twitching in his own left ear. It occurred during the heat of summer, and invariably commenced after dinner. The twitching at first was not of more than half an hour's duration. It did not affect the hearing. The next day, after dinner, the buzzing sound was resumed. This followed for

four days in succession. The duration of the buzzing now was gradually increased, until the last recurrence. The noise continued until lost at bed-time in sleep. Inflation of air, chloroform vapor, electricity—both Faradic and continuous—did not in any way control the buzzing sound. The fluttering was felt at the drum head, and analyzed as a rhythmical contraction of the tensor tympani muscle. The contraction and relaxation varied at times from 130 to 160 to the minute. The cause was ultimately found to be a glass of wine taken at dinner, in connection with the very hot weather. Omission of the wine stopped the noise, and its resumption at dinner renewed it. Other cases of a similar nature have come under the observation of Dr. Chisolm. The muscular twitching was similar to the twitching so often experienced in the muscular fibres of the eye-lid, and which may be kept up for minutes, hours, or even days. There was no diminution of the hearing power, even while the noisy muscular contraction was greatest.

Dr. Burnett had noted in his own case that when he made a strong contraction of his orbicularis muscle there was a peculiar sound in the ear of the same side. He at first thought it was the sound of muscular contraction conveyed through the bones of the head, but this was disproved by the fact that he could only produce the sound at certain times. He could always do it in the morning. He attributed it to contraction of the tensor tympani muscle.

Dr. Stephens had a patient suffering with tinnitus, who came to this country for change of climate, but received no benefit from it. He used the ordinary treatment without success. Hydrobromic acid, which usually gave good results, did no good in this case.

Blepharoplasty.—Dr. Eugene Smith, of Detroit, read a paper describing a successful operation for blepharoplasty, in which the graft was taken from the arm without any pedicle. A piece of skin one and a half by two inches was taken from the arm, and the cellular tissue and a portion of the true skin shaved off. This was then applied to the cut surfaces of the lid, being about one-fourth larger than the wound. The case progressed to a very successful termination, the motions of opening and closing the eye being perfect. There had been no contraction of the lid for several months. The operation was performed in October last.

Dr. H. Augustus Wilson, of Philadelphia, reported a case operated upon by Dr. Levis, in which the graft progressed well for two weeks, and then sloughed, leaving the condition as bad as before operation. The skin of an amputated

little finger was used in this case, but the cellular tissue was not removed. He attributed the failure to this fact.

Dr. Burnett mentioned a case where the contraction afterwards was continuous, until it did away with all the good results of the operation. He thought this was the most frequent cause of failure.

Dr. Smith said he was thus particular in describing the operation, because he had twice before failed in the same. He attached much importance to shaving away all of the cellular tissue and a portion of the cutis vera, thus bringing the dermic cells in direct contact with the cut surface. He thought failure was generally due to want of care in preparation of the graft. Flap should always be one fourth to one-half larger than the surface to be covered.

Dr. Reynolds described a similar operation performed by him in 1872. First graft came away in the night, causing severe hæmorrhage. The second was successful, and the patient, a practicing physician, is now doing well.

Compressed Hypodermic Pellets.—Dr. H. A. Wilson, of Philadelphia, Pa., exhibited a lot of these pellets, introduced to the profession by him some years ago. They were originally intended for solution for hypodermic use, to prevent keeping solutions for this purpose. He was in the habit of using one containing $\frac{1}{100}$ grain of atropia and $\frac{1}{4}$ gr. sulphate sodium for relaxing the accommodation. He simply placed it in the conjunctival sac of the lower lid, and it was absorbed in about two minutes. It would relax the accommodation in an hour. One application was usually sufficient.

Dr. Risley, of Philadelphia, could not understand how so small an amount could produce paralysis of accommodation in so short a time.

Papers by Dr. Lawrence Turnbull, of Philadelphia, entitled (1) Otitis Intermittens, with Observations upon the Use of Quinine in Diseases of the Ear; (2) On the Importance of Ear Examinations in Effecting Life Insurance, were, on motion, read by title and referred to the Committee on Publications.

THIRD DAY—*May 5th.*—Most of the afternoon was spent in executive session.

A running discussion on *Astigmatism* was indulged in by Drs. Reynolds, Risley, Burnett, Scott and Daly—dwelling especially upon the means for testing this error of vision.

A paper by Dr. R. S. Reynolds, of Louisville, Ky., on the *Treatment of Nasal Polypi*, was read by title, and, on motion, was referred to Committee on Publications.

Adjourned.

SURGERY AND ANATOMY.

First Day—*May 3d.*—Chairman, Dr. Hunter McGuire, of Richmond, Va.; Secretary, Dr. Duncan Eve, of Nashville, Tenn.

New Surgical Instruments.—Dr. Joseph H. Warren, of Boston, Mass., opened the work of the Section by exhibiting a collection of instruments devised by himself:

(1) A few vermicular pointed catheters of three sizes. They combine the advantages of a screw and wedge, and their use is attended with less irritation and less difficulty of introduction. (2) The next was his modification of Sir Henry Thompson's tube. It consists in having a tip, one-half of which is thrown back by a spring after it has entered the bladder. It acts as a scoop and allows of a free passage of the fragments. The tip may be made to revolve or be stationary. The straight tube used by Bigelow may be made with this tip. It may be used to remove balls from gunshot wounds, foreign substances from nose, throat or ear; for these cases smaller tubes may be used. (3) A Bigelow's tube with a vermicular point. Much larger tubes of this sort with less shock are passed. Many of the dangers of large instruments are overcome by its use. The writer names this the Thompson American Tube, in honor of Sir Henry Thompson. (4) A uterine probe with revolving point. This has a fenestrated opening which can be threaded with a tuft of cotton. (5) A set of rapid dilating urethral and uterine sounds with revolving bulbular points, which may also be used for the œsophagus or anus. (6) A trocar with revolving point—useful for tapping cases of anarsarca, etc. (7) A serrated herniatome; hæmorrhage with its use is less. (8) Dr. Goldenbird's Torsion Forceps were exhibited. (9) A self-retaining trocar for paracentesis thoracis. (10) His latest devised hernia syringe. (11) An instrument called the Demonstrator's Knife—useful in dissecting veins, arteries and nerves. (12) A modified sound, which he thought possessed many advantages.

Dr. Lewis a Sayre asked why complicate all these instruments by the addition of a joint and a rotary point?

Dr. Warren replied that the vermicular point facilitated introduction.

Dr. J. W. S. Gonley, of New York, said in the construction of instruments, the chief idea should be simplicity. The jointed arrangement, he feared, would allow of the retention of poisonous matters, and thus their possible transfer from one patient to another. In sounding for stone, we should

use an instrument with an absolutely rigid extremity; if anything was to be added, it should be at the distal, and not the vesical extremity. We need not trust to resonance, for the surgeon's experienced touch is sufficient to enable him to recognize a vesical calculus.

Dr. S. Benham, of Pittsburg, Pa., believed that an unbroken communication offered the best possible means for the transportation of sound. Dr. C. Schriver, of Bethany, W. Va., did not approve of complications in the construction of surgical instruments, and therefore did not see any special value in those exhibited.

Double Irrigation and Injection Tube.—Dr. H. O. Marcy, of Boston, Mass., exhibited some soft rubber double tubes, which could be used as stomach, uterine or rectal tubes, and as catheters.

Dr. Gouley said he had a double soft rubber catheter for five years, but he never uses it in the male bladder. Irrigation should be done as quickly as possible, and not kept up constantly.

Dr. Marcy believed *cystitis* could be treated satisfaotorily with heat, which could be applied by means of the catheter exhibited.

Dr. Wm. A. Byrd, of Quincy, Ill., uses a single rubber tube for a *stomach tube*, and fills it from a funnel, reversing the patient and allowing the fluid to run out. Dr. Hodgen, of St. Louis taught him this.

Dr. Hunter McGuire mentioned a case in which a soft rubber *catheter was passed completely into the bladder*, from whence he removed it the next day with a lithotrite.

Ulceration and Perforation of the Appendix Vermiformis.—Dr. Wm. A. Byrd, of Quincy, Ill., reported a case and exhibited a specimen, and made some remarks upon abdominal section in cases of perforation of the bowel. He took grounds strongly in favor of operative interference, and based his opinions on experience in many cases. He advocated early operative interference in inflammatory affections around the cæcum. He has operated four times. The operation is easy. An exploratory incision can be made for diagnostic purposes. He referred to acute perforating typhlitis. He thinks it should be divided into acute and chronic cases; the acute require surgical interference. He also has noticed some cases which appear to be recurrent. He thinks it better to stitch the intestine to the abdominal incision and make an artificial anus; and above all, thinks it our duty to give the patient the benefit of the operation with due antiseptic precautions.

Dr. Byrd's remarks were received with marked appreciation by the section.

Dr. T. Herring Burchard, of New York city, spoke of acute perforation, and suggested operation immediately after the patient had rallied, and before the supervention of peritonitis.

Dr. C. B. Nancrede, of Philadelphia, referred, among the causes of intestinal obstruction which might require laparotomy, to *inflammation of all the coats of the intestine*, and thus arrested peristaltic action. An acute inflammation of some portion of the intestinal canal might follow any of the causes of peritonitis, and be severe enough to involve all the coats of the bowel without becoming general peritonitis. He referred to a case in which that view was sustained by an autopsy.

A doctor from Pittsburg thought it possible that operations might be avoided by proper study of the case and the use of preventive medication.

Renal Calculus—Pyonephrosis.—Dr. James E. Reeves, of Wheeling, W. Va., presented for Dr. K. W. Allen, of Wheeling, W. Va., a case of pyonephrosis, exhibiting a nephritic calculus weighing 480 grains. The case was that of a widow, aged 55 years. Her general appearance was that of a great sufferer. She was sallow, emaciated, asthmatic and constipated. Her bad health dated from her menopause. On examination a large tumor was found extending from the right hypochondrium to the left hypochondrium and pelvis. Fluctuation was marked. Aspiration evactuated 18 lbs. of sero-purulent matter, and this was followed by immediate relief. The tumor had no connection with the liver, and the history of the case forbade the idea of its being ovarian. The benefit from the operation was only temporary, and death resulted. An autopsy showed a tumor extending from the under surface of the liver, with which it was in contact, but not adherent downward into the cavity of the pelvis. The lower end of the ileum ran across the tumor to the ileo-cæcal-valve, producing a constriction noticeable before death. The sac was fifteen inches in length, twelve inches wide, and six through. It contained ten pounds of purulent fluid, and was found to be the remains of the left kidney. An enormous mal connection was found imbedded in the sac together with smaller ones, weighing 416 grains. At no time were there symptoms of blood poison, and the other abdominal organs were healthy.

SECOND DAY—*May 4th.*—**New System of Surgical Mechanics.**

Dr. Charles F. Stillman, of New York city, read a paper on this subject, illustrated by numerous drawings and instruments. The system is based upon the principle of *local extension* as opposed to *general extension* developed by all other systems, which local extension is produced by the use of the secter splint in the various forms shown by him as adapted to the several joints He first traced the history of this sector splint from the initial idea of two slatted and clamped strips, attached by copper plates, to its present improved and varied form. Having given a cursory mention of Buck's extension, various modifications of the long splints, Hutchinson's method and Thomas' plan, of Liverpool, he summed up the advantage of his system as follows: (1) Extension at any angle with motion; (2) Extension at any angle with luxation; (3) Fixation; (4) Motion complete or limited—constant or occasional; (5) Exposure of surface about the joint, admitting compression, elastic or otherwise, hot and cold applications, blisters, dressings and easy inspection.

This was followed by an exhibition of splints for the spine, hip joint, knee joint, ankle joint, and elbow; also, an instrument for reducing cases of talipes in various forms and of long standing, by which instrument the surfaces of the tarsal bones are separated before the foot is made to assume a normal position.

Dr. R. A. Kinloch, of Charleston, S. C., thought too much advantage was claimed for such contrivances: that much could be done by rest secured in other ways; he wished this fact was better appreciated. He was sorry he could not share the enthusiasm of Dr. Stillman, but had failed to secure good results.

Dr. J. M. Quimby, of Jersey City, N. J., endorsed fully Dr. Kinloch's remarks, and was especially emphatic in approving the treatment of club-foot with adhensive strips, plaster-of-Paris, etc., instead of costly shoes and braces. He thought mechanical instruments were sometimes useful, but also capable of great abuse, and that they did not control muscular contraction.

Plastic Operations on the Face was the title of a paper by Dr. Alfred C. Post, of New York city, in which he detailed two cases. The first was one of epithelioma, involving the left side of the face, about 55 millimetres in diameter, extending above to a line within 6 millimetres of the margin of the lower lid, and below a line midway between the ala of the nose and the angle of the mouth. The patient was a man 61 years of age. Dr. Post operated on the 15th of May,

1880, by making a horizontal incision, separating the morbid growth from the lower lid, and another parallel incision below the tumor, connecting the two by vertical incisions before and behind. He then dissected up from the adjacent parts the diseased mass, included between the four incisions, bearing a quadrilateral chasm, nearly of a square form. The two vertical incisions were then extended downwards, the anterior one to a little below the base of the lower jaw, and the posterior one nearly as low as the base of the jaw. From the inferior extremities of these two vertical incisions, curved incisions with their concavities looking backward and upward, were made to the extent of 5 centimetres, including between them a peduncle of skin and subjacent tissues for the nourishment of the extensive flap. The flap was then drawn up and secured by sutures so as to fill up the whole space left vacant by the removal of the disease. The wound healed throughout, leaving the patient but slightly disfigured. The second case was one of absence of the upper lip, and of the columna nasi, as well as of a portion of the right ala nasi, occasioned by the application of a caustic paste for the removal of a supposed cancer of the upper lip. The patient was a man 65 years of age. Dr. Post operated on the 1st of May, 1880. He commenced by separating from the cheek a small remnant of the upper lip, which remained at the left extremity, and reversing it so as to form a columna for the nose. He then made two horizontal flaps from the cheeks with peduncles curved downward and forward, and united them by means of pins and sutures, so as to reconstruct the upper lip. A number of supplementary operations were required, and the result was a marked improvement in the appearance of the patient.

Treatment of Arthritis of the Tempero-Maxillary Articulation. Dr. D. H. Goodwillie, of New York city, reported cases treated. The causes of arthritis are local and constitutional. Whenever it occurs, the motion of the jaws become impaired according to the cause, severity, and length of the disease, and often requires long treatment to restore the muscles to their normal condition. The treatment is done by means of an apparatus to relieve the joint of pressure on the inflamed articular surfaces. It is made as follows: An impression of the teeth of the jaw is taken and an interdental splint made, the posterior part of which is raised a little for the purpose of a fulcrum, on which the back tooth of the opposite jaw rests. Another impression is taken of the chin, and a rubber splint is made to fit it. A skull-cap is next

made to fit the head closely, with elastic bands on each side passing down from it and fastened to the chin-splint. The interdental splint is placed in position in the mouth, and the back teeth of the jaw closed on the fulcrum of the interdental splint; then, when pressure is made on the chin by tightening the elastic bands connecting the skull-cap with the chin-splint, the joint is relieved from pressure.

Dr. E. M. Moore, of Rochester, called attention to cases where cicatricial bands caused the trouble—division of which usually cured them.

Dr. S. D. Gross, of Philadelphia, saw comparatively few such cases since the abuse of calomel has ceased; he had not been able to accomplish much with wedges, etc.; he preferred section of the bone; had performed the operation.

Dr. Hunter McGuire, of Richmond, Va., said that a case recently fell into his hands. There was no motion whatever. As every other plan had been tried by Dr. Sayre and others, Dr. McGuire took out a wedge-shaped piece of bone just at the angle. The result was good. He also spoke of a case where a bridge of bone passed from the upper to the lower jaw for eleven years—no movements in joints; yet returned quickly after division of the bridge of bone. Thought with wedges, etc., the treatment should be prolonged.

Dr. Lewis A. Sayre, of New York, applied *a cast upon a case of lateral curvature*, and explained the action, etc.

Dr. John T. Hodgen, of St. Louis, objects to the jury mast, on the ground that the straps on the child retards the growth of the jaw. Thinks casts cause hernia.

Dr. Sayre said he had never seen any of the bad effects from the method.

Dr. J. C. Hutchinson, of Brooklyn, N. Y., was in favor of self-suspension, raised shoe on the opposite side, friction, massage, etc. He did not think much of this or any brace. He advocated "Sayre's method" of treating spinal curvatures. He mentioned, however, its liability to cause hernia. He uses the cast frequently.

The Chair appointed Drs. R. A. Kinloch, of Charleston, S. C.; T. F. Pratt, of St. Louis, and T. H. Burchard, of New York, from the Surgical Section on the Prize Award Committee.

THIRD DAY—*May 5th.*—**An Experimental and Clinical Inquiry into the Etiology and Distinctive Peculiarities of Traumatic Fever.**—Dr. B. A. Watson, of Jersey City, N. J., in the first part of his paper, enters fully into the history of traumatic fever, presents the views of Billroth, Wagner and Weber.

He is of opinion that the numerous and ever-changing views of the etiology of traumatic fever, beginning with Hippocrates and coming down to our times, reflect for each age the true condition of the medical and allied sciences; but thinks it sufficient to classify all of the theories as the septic, nervous and nervo-septic. The first question to be answered is What do we understand by traumatic fever? According to the writer's interpretation of the differentiations given by most writers, he thinks it unfortunate to use the term traumatic instead of septic, since many severe traumatisms are not attended with fever. Another objection is found in the fact that recent investigations in connection with the practice of antiseptic surgery suggests the probability of another form of fever developed in connection with wounds unlike that from septic absorption. The symptoms, such as stupor, unfitness for mental efforts, hallucinations, prostration, etc., is not noticeable in this form. Frequently the increased temperature is the only important clinical symptom. Patients with a temperature of 102°–104° go about with ease and amuse themselves. A patient with both arms amputated, treated by Lister's method, and whose wounds healed by first intention, walked all over the house on the day after the operation, and continued to do the same with an axillary temperature of 104°. Another who had received a severe compound fracture of the leg, with extensive contusion and laceration of the soft parts from the knee to the malleoli, and who showed an axillary temperature of 105.8°, did not exhibit the slightest trace of illness. There can be no question of the propriety of this division into the septic and non-septic wounds. We observe putrefactive decomposition, septic absorption and septic fever in the wounds which are open to the air; but in those wounds which are purely subcutaneous, or where the antiseptic treatment has been successfully applied, we find only the non-putrefactive decomposition, harmless absorption and a non-septic fever, which has neither pathological nor prognostic significance. The term traumatic fever, as applied to that traumatic condition due to septic absorption, is a misnomer; and it is questionable whether it should be applied to the non-septic form. An open wound is essential to the development of septic fever; but its relation to the non-septic fever is not settled, and can only be studied in connection with antiseptic treatment.

Regarding the influence of agents, such as chloroform, ether and carbolic acid in lowering the temperature and influencing the production of fever, on etherization of rabbits

with a normal average temperature of 102.7°, thirty minutes after complete anæsthesia, the temperature fell to 101.6°; in thirty minutes more it was 101.9°; in an hour and a half, it rose to 102.5°, but after two hours, it fell to 102.2°. The average temperature of the rabbits to which chloroform was given was 103.2°; in thirty minutes it went down to 101.2; in one hour it was 101.9°; in an hour and a half, 101.7°; in two hours, 101.2. On the first day it was 102.3°; on the second, 102.4°; on the third, 102.3°. The fall of temperature under ether was rapid but transient, passing off almost entirely in an hour; while the fall after the use of chloroform was marked and lasted three days; in the latter the fall is greater and the reaction slower. In studying the influence of shock in traumatism, it was aimed to do so without organic lesions. One pole of a battery applied to the mouth and the other to the rectum of rabbits, whose normal temperature was 103.2°, produced but a slight effect on the temperature. In non-compound fracture of the rabbit's leg with a normal temperature of 103°, on second, third and fourth days, 103.5°; sixth, 103.4°; seventeenth, 103.6°. The highest average temperature occurred on the seventeenth day. On the twenty-second day there was pretty firm union. Upon ten rabbits the experiments consisted in injecting into the lumbar region about half an ounce of blood—every precaution being taken. The average temperature before the injection was 103.6°; average temperature three hours after, 103.6°; second day, 103.4°; third, 103.2°; fourth, 103.7°; fifth, 103·6°, and eighth, 103.6°. The injections produced no change in temperature; in most cases absorption of the fluid and swelling took place without a rise of temperature, but in the exceptional case and with septic poisoning, and death resulted. After these careful experiments, the writer is convinced that the fever is not due to the lesion, and raises the question as to whether or not it is due to the absorption of carbolic acid. The carefully made experiments of Edelberg, inclines him to think that the fever noticed in connection with the antiseptic treatment should be attributed rather to the partly coagulated and partly fluid blood rather than to the carbolic acid. The writer, after reviewing the question thoroughly, is confident that traumatic fever is not due to blood extravasation, but thinks it should now be sought for in the action of the carbolic acid on the wound secretion, aided by the air; while the absorption of the new products is unquestionably the first step in the development of the morbid condition.

Dr. Henry F. Campbell, of Augusta, Ga., asked if the writer recognized traumatic fever in wounds not antiseptically treated?

Dr. Watson replied that the septic form of this fever occurred in connection with open wounds not antiseptically treated; and the non-antiseptic fever in those wounds where complete asepsis is preserved.

Dr. Campbell appreciated the fact that traumatic fever may arise independent of septic absorption. He cited as an example the introduction of a catheter. If the patient is of a highly nervous temperament and the day is inclement, he has often noticed a rise of temperature of an intermittent character, marked by a rise in the forenoon and a decline in the afternoon, this fever also is recurrent. He called this traumatic, others defined it urethral. He saw in such cases an intimate relation between the wound and brain through nerves of the wounded part, and must think this reflex action through the spine in some way a factor of this fever. He has not extensively used antiseptics, but wished to call attention to his treatment of patients after operation. In his section (and he thought it applied to most malarial sections), he has noticed that quinine after an operation almost invariably cut short the fever. He was so much impressed with its value that he never neglects to use it after operations. Regarding its use before an operation to prevent shock, etc., as practised by Dr. Hunter McGuire, he knew but little, but felt warranted in advising its use after an operation.

Dr. C. B. Nancrede, of Philadelphia, spoke of the use of antiseptics.

Dr. Alfred C. Post, of New York, called attention to the plan of Prof. Markoe, and thought it superior to that practised by Lister. After trying both plans, he preferred Markoe's.

Dr. J. M. Quimby, of Jersey City, also spoke in favor of Markoe's plan. He had seen Listerism practised by Lister in his own hospitals without seeing better results than Markoe's afforded.

Labial Carbuncle, or Malignant Pustule and its Treatment was the title of a paper by Dr. Chas. A. Leale, of New York, city. He stated the etiology of the disease, and showed from the writings of Billroth, Paget, Gross, Parker and others, the extremely fatal nature of the disease; and after describing the anatomical relations of the vessels, nerves and other structures in which carbuncle usually appears, and the *modus*

operandi by which the septic or purulent matter affects the contiguous lymphatics and veins, causing metastatic adenitis, phlebitis and frequently gangrene, ending in death by æsthenia or heart-clot, he described his method of treatment. Examine thoroughly the extent of the subcutaneous induration by the tactus eruditus, bearing in mind the location of the arteria septi nasi, as it passes down near the border of the lip to join the superior coronary artery; avoiding each, make a free incision outwards and downwards along the course of the fibres of the orbicularis oris muscle extending the cut each way in a line until all the diseased tissue has been passed, taking care not to go through the mucous membrane lining the lip, to which extent the disease rarely extends. Dr. Leale, then with a fine piece of ivory or wood, with its ends covered with cotton, thoroughly applies to all the diseased parts and cut surface the chemically pure nitric acid; this is pressed with sufficient force into all the diseased parts, so that every little pocket of pus is reached, and the intervening membranes destroyed, which would otherwise be left to slough off and continue the septic or purulent infection. By this time the system is very much depressed, and for the relief of the pain, he gives morphia *pro re nata*, and to overcome the blood-poisoning, whiskey is given liberally, largely diluted with water. On some occasions he has had to apply the acid on the second or third day, or until all the poison has been rendered inert. His subsequent treatment is by the open wound method, applying unguent. balsam. Peru, gently applied on lint, and giving the patient the most nutritious diet and restorative tonics. He claims that by this treatment all the little canals making the cut surface appear like a sieve are reached, and that the entire poisonous mass is kept within circumscribed boundaries, and the absorbed poisons, by sustainining the system, are eliminated. In the early part of the treatment, a full dose of sulphate of magnesia, largely diluted in water, is given. As a rule, it will be found tuat on the third or fourth day after the incision, and the first application of the acid, all danger will have subsided and the convalescence will steadily progress. But, in some instances, we may have acute mania from cerebral meningitis or erysipelas. The former to be treated by large hypodermic injections of morphia, and the latter, when possible, to be retained, the cooling lotion of lead and opium.

Recapitulation.—Carbuncle of the lip or malignant pustule of the lip has, by the usually recommended modes of treatment, proved fatal in a very large proportion of cases, even

in healthy, strong and vigorous adults, and is, therefore, a much dreaded malady. The causes of the failure, in Dr. Leale's opinion, are that, by the usual method of treatment, only a portion of the diseased mass is reached, and consequently the remaining imprisoned *materies morbi* cannot be eliminated, nor can any local application reach the disease.

Dr. Alfred C. Post, of New York, stated that he was very much pleased with the paper of Dr. Leale. He thought that when we see patients early with malignant pustule a large proportion can be saved. He usually operated by cutting through the vermillion border of the lip.

Resolved, That the President of the Surgical Section appoint a committee of three, to select six subjects for presentation and discussion at the meeting of the Section in 1882, assigning each subject to a gentleman, who shall, by the reading of a paper, or otherwise, introduce his subject for discussion.

OBSTETRICS AND DISEASES OF WOMEN.

First Day—*May 3d.*—Dr. James R. Chadwick, Boston, Chairman; Dr. Joseph T. Johnson, Washington, D. C., Secretary.

Resume of Rules for the Use of Pessaries.—Dr. Paul F. Mundé, of New York city, made a brief recapitulation of the rules governing the introduction and supervision of vaginal pessaries (including vagino abdominal), which may facilitate the remembrance of the directions given in the preceding remarks:

(1.) Always be sure of the diagnosis of the nature and degree of the displacement before resorting to a pessary. (2.) Always replace the uterus before applying a pessary. This applies particularly to retro-displacements. It is well to replace the uterus repeatedly, every day or twice daily, for several days before introducing a pessary. The replaced organ may be supported by cotton tampon in the interval, if it is desired to distend and toughen the vaginal pouch; or the object of relaxing the abnormally stretched uterine ligaments may have been obtained by the mere repeated replacement. In flexions, chiefly ante-flexions, the frequent straightening of the uterus, or conversion into the opposite flexion by the sound, will often prove beneficial before introducing a pessary. (3.) Never insert a pessary when there is evidence, by the touch of acute or recent inflammation of the

uterus or adnexa, or when pressure by the finger on the para-metrium (where the pessary is to rest) gives decided pain. (4.) When adhesions bind the fundus down, use great caution and discrimination in deciding whether an attempt should be made and is justified by the symptoms, to elevate the fundus by manual or instrumental means, or whether the elevation should first be tried by the gradual elevation of a pessary (this applies only to retro- and latero-versions). If neither is to be recommended, do not introduce a pessary until local alterative and absorbent measures have affected a resolution of the adhesions. (5.) Always choose an indestructible instrument, if possible. This does not apply to prolapsus uteri. (6.) Always measure and estimate the vagina carefully before choosing a pessary; and be careful to adjust the pessary in every particular—size, curve, width—to that particular case. No two vaginæ are exactly alike. (7.) If the vaginal pouch is not sufficiently deep to accommodate a pessary, (anterior pouch for ante-displacements, posterior pouch for retro-displacements), defer the attempt to fit a pessary until the pouch has been deepened by daily tamponing with cotton, or by the upward pressure of a Cutter or Thomas vagino-abdominal supporter. Or the pouch may be gradually deepened by using first a small (slightly curved in retro-displacement) instrument, and gradually increasing its size (or curve) until the desired size and shape for permanency is reached. (8.) Never leave a pessary in the vagina which puts the vaginal walls to the stretch, and which does not permit the passage of finger between it and the wall of the vagina. This does not apply to prolapsus uteri. (9.) A vaginal pessary which projects from the vulva, is displaced. (10.) A pessary which gives pain must at once be replaced by one which is painless. (11.) A well fitting, properly chosen pessary should not only give no pain, but should be a direct source of comfort to the patient. (12.) Always examine a patient on her feet after introducing a pessary, or when it is desired, at her return, to ascertain its efficiency in sustaining the uterus during walking and exertion. (13.) Always tell the patient that she has a pessary in her vagina, or she may not return, in spite of your directions, and the pessary may remain for years, to her ultimate great discomfort and danger. (14.) Always tell the patient to return within a week after the first introduction, in order that the position and working of the pessary may be looked after, and that, if it does not suit, it can be removed and a better one inserted. Several trials and various instruments may be

required before one is found which she can wear permanently. Also let her return for inspection once every four to eight weeks, as the case may require If she fails to do so, the pessary may cause ulceration, for which treatment will be needed. (15.) Tell the patient that she will need to wear the pessary for months, perhaps years, before a recovery can be expected. (16.) Never introduce a pessary which the patient cannot remove herself. (17.) Tell the patient to remove the pessary herself if it gives pain, and show her how to do it. When she has removed it, let her present herself at once for examination. (18.) Tell the patient to use daily vaginal injections for cleansing purposes. If she notices profuse discharge, add astringents; if the discharge is sanious or purulent, let her come at once, as the pessary has probably caused abrasion. (19) Tell her on removing a pessary to test the result; that the permanence of the benefit obtained therefrom cannot be determined for several days or weeks. (20.) Always direct your patients to relieve all superincumbent pressure on the pessary by a proper support of their skirts; and if the displacement be anterior, aid the internal supporter by an abdominal (supra-pubic) pad. (21.) All pessaries may be introduced in the knee-chest position when it is desirable or possible to replace the uterus only in that position.

A Sims' speculum elevates the perineum, the air enters and expands the vagina, and the pessary (chiefly in retroversion and prolapsus) is introduced by touch and sight, and the patient laid over on her left side. For aggravated retroversion and for prolapsus of ovaries or uterus, this position offers many advantages over the left semi-prone decubitus. Care must be taken to remember that the position of the patient is reversed, and that the pessary must be introduced accordingly.

Dr. R. Beverly Cole, of San Francisco, Cal., said the Hodge pessary was the first one invented which showed any knowledge of the anatomy of the female organs. No two pessaries were exactly alike. Dr. Albert Smith, of Philadelphia, had constructed one which had the peculiarity of Simpson's (also Hodge's) hard-rubber instrument. He exhibited his pessary, with the important modification of a spring support for retroversion. The great advantage claimed by Dr. Cole for this modification over others for this class of cases (retroversion) is, that there is no risk of inflammation from the uterus having to impinge during the various movements of the person, upon a rigid, unyielding point. Dr. Cole thought that the

numerous pessaries of Thomas were valueless for anteversion. In his hands the anteversion cup-pessary of Thomas had failed; but Dr. Mundé, of New York, had used them successfully. Dr. Cole's hard-rubber pessary, with spring modification, has been most serviceable in anteversion. He was not aware that a condition of the uterus, which he characterized as *atony*, had ever been described before. The organ becomes flabby and soft, settles down on the posterior wall of the vagina, and makes a double curve—the first forward, the second backward—and the os turned upward and forward on the posterior wall of the vagina. The upper curve often confuses the gynæcologist, and it is called sometimes a fibroid, sometimes the fundus of an ante-flexed uterus. Great difficulty is often experienced in introducing the sound, and it may be often accomplished by turning the sound exactly in the opposite way, or its convexity backward. He had first commenced to treat them with an English bougie, introduced every second day as an excitant to produce afflux of blood to the organ, and thus restore tonicity. Afterwards he got from Dr. James Simpson, of Edinburgh, the idea of the galvanic intra-uterine stem pessary, made above of zinc, and below of copper. The intra-uterine stem galvanic pessary of Dr. Cole differs from that of Dr. Simpson in this important particular: the current in Dr. Simpson's is limited to the point of union of the two metals at the centre of the staff; whilst Dr. Cole's, having the two metals arranged as plates running longitudinally, insulated by an interposing layer of hard rubber, distributes the current the *whole length of the stem*. This pessary is, according to Dr. Cole, for *super*-involution (atrophy) of the uterus invaluable. By means of this instrument, he has built up the uterus from its atrophied condition to one of health, brought back the menstrual function which had been absent for five years, and had the satisfaction of seeing pregnancy supervene.

Dr. Cole next exhibited an instrument of his invention, which he called a *gas-cautery*, for the cauterization of the mucous membrane of the cervical canal in cases of fungus growths thereon, and other conditions. The Doctor advocates the use of *red* instead of *white* heat in these operations, as the *red* is less apt to cause troublesome hæmorrhage. He can produce a red heat in thirty seconds with this instrument. He next showed Simpson's method of making pessaries to suit individual cases by moulding gutta-percha, previously softened in warm water, in the hands.

Dr. Chadwick made the discussion general, and called

upon Dr. Albert H. Smith, of Philadelphia, who said, that, in his opinion, pessaries were too much used, as they were often hurtful if not used judiciously. His pessary was only intended for retroversion and prolapsus. Ante-version, ante-flexion and retroversion, he had frequently relieved by means of the intra-uterine stem pessary, but he did not believe in the galvanic action. He thought it simply mechanical.

Dr. H. P. C. Wilson, of Baltimore, Md., agreed with Dr. Mundé, of New York, as regards the importance of ascertaining whether the uterus can be lifted up before introducing any pessary. He said he was often compelled to use a dozen or more before he could get one to fit with comfort. He remarked that he had once succeeded in relieving a case of ante-flexion by introducing Hodge's horse-shoe pessary. Dr. Wilson did not approve of stem pessaries. He said he had the best results in ante-flexion, from splitting the cervix backwards, and the os internum backwards and forwards.

Dr. H. M. B. Maughs, of St. Louis, discussed the ligamentous supports of the uterus, and dilated upon the importance of the vaginal walls and perineum as supports. Stem pessaries had killed catacombs of women. Anterior displacements were the rule in virgins; posterior in multipara.

Dr. J. M. Quimby, of Jersey City, N. J., had never derived any satisfaction from the use of stem pessaries, and he is more and more inclined to avoid the use of all pessaries as he grows older.

Second Day—*May 4th.*—**Uterine Calculus.**—Dr. F. C. Larrimore, of Mount Vernon, Ohio, exhibited a "uterine calculus" which was probably a fibroid that had undergone calcareous degeneration. It was taken from a woman 70 years of age, the mother of five children, the youngest being forty-two years old. She had prolapsus uteri after the birth of the last child. During the last six months of her life she had constant escape of urine. The calculus weighed four pounds and one ounce, and filled the uterus entirely, which measured six and one-half by five and one-half inches. There was no true bone in the shell of the calculus.

Dr. Maughs had seen a similar case, in which the tumor was originally an intramural fibroid that became submucous, and subsequently underwent calcareous degeneration. The mass was very much smaller than the specimen exhibited, which Dr. Maughs thought was at first an intramural fibroid.

Dr. Dunlap, of Springfield, Ohio, was unable to account for its original formation in the walls of the uterus if it was found truly in the cavity of the uterus, and surrounded by a mucous surface.

Does a Uterine Fibroid have a True Capsule?—Dr. H. O. Marcy, of Boston, raised this question.

Dr. Dunlap remarked that his observation had been that they have a capsule, which he had regarded as having been formed from the connective-tissue in the muscular structure of the uterus. As the tumor grows, it presses upon the muscular tissue, which is destroyed, except the connective-tissue, which forms the capsule and extends without blood-vessels going directly through the capsule into the tumor.

Dr. E. S. Dunster, of Ann Arbor, Mich., remarked that Dr. Dunlap's explanation would be limited to those cases in which the original tumor was interstitial, and would not apply to those which were closely under the mucous membrane, or serous covering of the uterus. He thought there was an investing capsule.

Dr. Dunlap thought, on the contrary, that the capsule was formed much more readily when the tumors were in those situations than when altogether interstitial, because the tumor pushes directly out and the tissues for the capsule are already formed and at hand.

Dr. Marcy asked, How early is the capsule found? If the the tumor is invested with a capsule early, it is early within the surgical interference.

Dr. Dunlap thought there was not so much connective-tissue in the investing substance at an early period as later; but, fortunately, there were but few cases in which surgical interference would be justifiable when the tumor was small; because so many of them are arrested in their growth, the patient living for years afterward.

Dr. John Byrne, of Brooklyn, had examined a large number of uterine fibroids, both of the pediculated and sessile varieties, and utterly failed to find anything which he could call a capsule proper. He was free to admit that he *always* found a more or less dense fibrous investment, varying with size and location, but considered this only the displacement or condensation of cellular tissue by the morbid growth, or the result of hypertrophy.

Dr. A. H. Smith, of Philadelphia, thought with Dr. Byrne that it could scarcely be claimed that there is a capsule specially belonging to these tumors. An investing tissue is found, entirely distinct from the tumor itself, and apparently formed from the parenchyma of the uterus pushed before the growth. He was unable to see the force of Dr. Dunster's remark; for we can carry in the finger and peel out the tumor, or after making an opening over it, ergot may cause

expulsion of the entire mass, and such results can be obtained when the tumor is not in immediate contact with the mucous membrane of the uterus.

Dr. John Morris, of Baltimore, regarded Dr. Dunlap's explanation of the formation of the investing material as the correct one, but he believed he was wrong in not giving the so-called capsule some nutritive power. For when this investing membrane is cut, uterine contractions, independent of ergot, occur, and they can be strengthened by the ergot. He therefore thought that the investing membrane must have nutritive functions related to the tumor, although it contained no large blood-vessels.

Dr. A. F. Erich, of Baltimore, remarked that there is a kind of capsule, whether a true capsule or not was not of much practical importance. Sometimes the investing substance is thick, again thin, and he had not discovered any large blood-vessels in a fibroid tumor. The practical question was whether or not interstitial fibroids are easily removed. If the tumors and the uterine tissue were directly united, it would not be easy to remove them; but so long as they were not directly united to the uterus, enucleation was frequently practicable and also advisable.

Dr. G. M. B. Maughs, of St. Louis, cited a case operated on by Dr. J. Marion Sims, of New York. He said that when the tumor was removed, he was sure that all of the morbid growth had not been taken out, as a part of the mass showed an absence of the usual investing membrane. He said that a part of the uterine tissue adhering to the mass might have caused the same appearance. [Reporter could not hear whether he stated that the tumor returned or not.]

Dr. Dunster remarked that the discussion was only a war of words as long as no one defined precisely what an investing capsule is.

Uterine Dilators.—Dr. H. P. C. Wilson, of Baltimore, exhibited the uterine dilators of his own construction, with a number of others of other makers. In the course of his explanatory remarks, he said that he considered the finger-nail the best curette. The dilators often enable the gynecologist to dispense with tents, the use of which is usually avoided when it was practicable. He then cited the case of a virgin with intra-uterine fibroid, in whom he used a tent to begin the dilatation and followed it with the dilator; then after sufficient dilatation, he removed the tumor with the curette of Thomas, with complete success.

Dr. Wilson thinks it very important to remove the pla-

centa after abortion, or even normal labor, by instrumental means, if it does not come away spontaneously very soon. He advises the use of anæsthetics when this is to be done. He thought dilatation useful in atonic conditions of the uterus as a means of stimulating the organ.

Dr. R. Beverly Cole, of San Francisco, differed *in toto* with Dr. Wilson. He fears active inflammation from injury done in forcible dilatation. He dwelt on the fact that often serious trouble arises from very trivial injuries to this organ. He has known forcible dilatation to produce the severest forms of pelvic cellulitis and endometritis. The Doctor does not think tents produce septicæmia if used discretely. During the last twenty years, he had introduced, on an average, two sponge-tents daily, into the uterine cervix, and had not yet seen a case of septicæmia, with a single exception; and in that instance the woman went directly from his office and thrust herself into a cold bath.

Dr. Paul F. Mundé, of New York, admitted, as claimed by Dr. Cole, that the instruments presented by Dr. Wilson were powerful, but at the same time it did not necessarily follow that they should do harm. With similar instruments he had dilated the cervix probably one thousand times in several hundred different women, and had yet to see the first case of inflammatory action as the result. He had not used sponge-tents so freely as had Dr. Cole, nor did he believe it was proper to do so. In all cases in which a hyperæmic condition of the uterus existed, where the sponge or other tent has been used and you wish a little more dilatation, septicæmia was much more likely to be produced by the repetition of the tent than was local inflammation by the careful use of such dilators. He thought Dr. Cole's experience in the use of sponge-tents was exceptional. He had used the tupelo tent extensively, and a special advantage was that it did not become offensive. He had also used the Molesworth dilator, but it was not exactly reliable.

Dr. A. F. A. King, of Washington, D. C., thought that instrumental appliances were dangerous, and that the tendency was growing to resort too frequently too them. He advocated strongly giving nature a fair opportunity, and, if it proved inadequate, the safer and milder methods should be tried first. Then, in case of failure, the physician could resort to the use of instruments. Often a purgative would cause an adherent placenta to be expelled if the patient were put in the upright position on a vessel to evacuate the rectum. Emetics often have the same effect by causing the

muscular contractions incident to vomiting. A pinch of snuff, causing sneezing, would even effect the expulsion in some cases, if the nose were held during the act. Hippocrates, with all the lights of the nineteenth century before him, would use, if he were still alive, some of his primeval methods in these cases before resorting to the brilliant and powerful array of instruments now in our armamentarium.

Dr. Erich did not agree with the last speaker. Often there was much done, but the other extreme should not be reached. He was opposed to forcible dilation from the beginning; for he was sure that serious damage was very liable to result. He preferred tents first. There were many cases in which none other than sponge-tents could be used at first, but these could be followed by tupelo, and afterward the small amount of dilatation required could be secured by means of instruments presented by Dr. Wilson. Forcible dilatation from the beginning with unyielding instruments would very likely produce laceration of the tissue, and inflammation was very liable to follow.

Dr. Warner, of Boston, Mass., agreed with Dr. Erich.

Dr. Robert Battey, of Rome, Ga., agreed with Dr. Warner. He was of opinion that the tendency nowadays was to resort to instrumental methods for too trivial causes and far too frequently. Dr. Battey said the "*vis medicatrix naturæ*" was often sufficient when it was not thought to be. Dr. Wilson's instruments were well enough, but it depended entirely upon the hand and the head that guided.

Dr. Albert H. Smith, of Philadelphia, said that according to his observation, forcible dilatation with unyielding instruments had been very unfavorable. He was glad to say that he had never used forcible dilatation in such cases as Dr. Wilson had suggested, but after being used by other skilful and competent practitioners, he had seen pelvic-cellulitis, abscess, septicæmia, and death follow as a result. He did not agree with Dr. Mundé that this instrument is especially adapted to the cases for which Dr. Wilson had advocated its use, for those were the very ones in which it was the most dangerous. The danger in rapid dilatation is not so much in the development of inflammation as the result of pressure, as Dr. Cole had maintained, because painful pressure can be produced consistent with the avoidance of inflammatory action, but the danger is in development of septicæmia. In all the cases to which Dr. Wilson had referred—polypus, abortion, etc.—discharge of broken-down tissue is very liable to be present, and the danger is that the instrument, in

careful hands even, not indicating the degree of tension brought upon the tissues, is liable to lacerate the tissues and thus give opportunity for the entrance of septic material. Dr. Smith had not seen a case in which, with chloroform and external pressure upon the uterus, he had not been able to bring his finger to bear upon the contents of the uterus in abortion. He wished to defend the sponge-tent. Like any other instrument, it might produce the greatest amount of injury, but the reason it had done so, as he thought, was because it had been carelessly used. It has not been properly disinfected, and has been pulled out too soon and left an open surface. He employs a sponge-tent with a large point, cylindrical to its end, covers the surface with moistened soap, gives it a thick coating of salicylic acid, introduces it quickly with strong forceps, and allows it to remain for forty-eight hours. If so used, he believed it would produce but little trouble.

Dr. Maughs agreed with Dr. Smith in nearly every particular. He had used sponge-tents a great many years, and never had a case in which he felt uneasy concerning them. He dips the tent in glycerine with carbolic acid, introduces it, allows it to remain for eight hours, then removes it and introduces another, and does not introduce a third tent at once, but waits a day or two; but if he wishes to enter the uterine cavity immediately he uses the water-bag dilator if the second sponge-tent has not produced sufficient dilatation.

Dr. H. O. Marcy, of Boston, spoke of the favorable results which he had obtained from the application of elastic tension in dilating the cervical canal (see *Medical Record*, Vol. XVII, p. 634).

Dr. Wilson said that all instruments might do harm, but that fact could not be used as argument against instruments when properly employed. Dr. Smith's objection that such dilatation as he proposed was liable to give opportunity for the absorption of septic material, he believed was equally applicable to the use of sponge-tents; for he had not seen a sponge-tent removed at the end of thirty-six or forty-eight hours that was not stained more or less with blood, showing that laceration of tissue had occurred on its removal. His experience was different from Dr. Cole's, for he had never inserted a tent that did not give rise to pain, and any instrument which caused pain, said Dr. Cole, is liable to give rise to inflammatory action; and yet he was the advocate of sponge-tents. The instrument was not designed for primary dilatation, but only for secondary dilatation, in cases in

which the uterus is dilatable, and where a little more dilatation than that already given by other means is desirable.

Double Drainage and Injection Tubes.—Dr. H. O. Marcy, of Boston, at the request of the Chair, exhibited his tubes. He showed in a very striking manner how they could be used as a means of applying warm water through the rectum in cases of pelvic cellulitis, or as a stomach-pump with Davidson's syringe. He also cited a case of cystitis, which was cured by keeping up a continuous stream of warm water through the bladder for twenty-four hours.

THIRD DAY—*May 5th.*—The Chair appointed the following:

Committee for Selection of Subject of Essay—Drs. E. S. Dunster, Ann Arbor, Mich.; G. M. B. Maughs, St. Louis; H. M. Field, Boston.

Committtee of Award—Drs. Robert Battey, Rome, Ga.; Albert H. Smith, Philadelphia, Pa.; P. F. Munde, New York city.

Committee to which Papers for Publication are Referred—Drs. Joseph Tabor Johnson, Washington, D. C.; John Byrne, Brooklyn, N. Y.; H. P. C. Wilson, Baltimore, Md.

Can we Make a Positive Diagnosis of Pregnancy Previous to the Occurrence of the Audible Sounds of the Fœtal Heart and the Detection of the Fœtal Movements? was the subject of an article by Dr. Joseph Tabor Johnson, of Washington, D. C. It is claimed that in the softened condition of the cervix uteri and the pinkish color and increased temperature of the vagina, we have quite positive diagnostic evidence of pregnancy. It is admitted that the only positive and indisputable signs are determined by auscultation, ballottement and fœtal movements; but these signs are not usually present in the first half of pregnancy. The presence of kiesteine in the urine, milk in the breast, the odor of vernix caseosa upon the finger as it is withdrawn from the vagina after a digital examination, the smooth condition of the anterior wall of the vagina and anterior cul-de-sac, associated with a pinkish-purple color of the vaginal mucous membrane, the placental souffle, the existence of *gravidene* in the urine, the presence of certain caseous elements resembling milk in the urine, were all passed in review as diagnostic signs of pregnancy; but no definitely stated conclusion was arrived at.

Dr. R. Beverly Cole, of San Francisco, Cal., did not hear the whole of Dr. Johnson's paper, but thought from what he did hear, it was rather an interrogation than a treatise. He then stated that there were three physical signs of pregnancy which he relied chiefly upon, viz.: 1st, Placental souffle;

2d, Pulsation of the cord, and 3d, The sounds of the fœtal heart. He regarded the last as the best and most reliable of them all. The pulsations vary from 110 to 140—double that of the mother. He described the sound as resembling the ticking of a watch under a pillow. Dr. Cole thought no signs positive enough (generally) to justify one in giving *decided* opinions when consulted on this point. He then cited a case, that of a girl who came to him and wished to ascertain whether or not she was pregnant. She appeared to be about six months advanced. Placental souffle was present, but no pulsation. The navel was protruding—admitted that she had intercourse with a man about six months before, and had not menstruated since. The doctor then made an appointment for another examination, but she went to another physician, who examined her six times, called in some three or four others in consultation, who advised the introduction of a sound. This was done, and when it was withdrawn the discharge proved that it had penetrated into an abscess, which Dr. Cole thought was undoubtedly due to pelvic cellulitis.

Dr. Albert H. Smith, of Philadelphia, thought placental souffle the most unreliable of the signs mentioned by Dr. Cole. He was anxious, he said, to hear Dr. Joseph Tabor Johnson's results from the thermometric observations on the cervix uteri. He thought Dr. Johnson's suggestions in regard to the action of the telephonic principle to the uterine sound, and the use of the electric light for illuminating the vagina, very good—quite brilliant, he would say. He liked the bi-manual method best of all.

Dr. Paul F. Munde, of New York city, agreed with Dr. Smith. His favorite method was the bi-manual. He thought Dr. Smith had touched the key-note in making this statement. He thought that this method, taken with the other signs usually associated, would enable one to make out a case better than any other method he knew of. He cited a case in support of his position.

Dr. Alex. Dunlap, of Springfield, Ohio, agreed with Drs. Smith and Johnson. His method was the same, the bi-manual. The presence of fibroids may sometimes mislead, as they enlarge the womb, but they are generally hard when small; sometimes soft and dropsical when large, and rarely symmetrical. These points he thought well to notice. Sanious discharge from the os is strong evidence of intra-uterine fibroid.

Dr. James M. Scott, of St. Louis, wanted to know if it was

not a very difficult thing to use the bi-manual method on a fleshy patient, which was answered in the affirmative.

Dr. G. M. B. Maughs, of St. Louis, wanted to know if there were any signs by which we can tell if a woman was *not* pregnant. (Dr. Joseph Tabor Johnson, of Washington, D. C., suggested, "Are there any signs by which we can tell that a woman *is* pregnant?") Dr. Maughs adhered to the original form of his query. He thought that we have an almost certain method, viz., the bi-manual. He said that the measurement of the uterus laid down for the various weeks of pregnancy would enable us to determine after examining.

Dr. A. F. Erich, of Baltimore, disagreed with Dr. G. M. B. Maughs, of St. Louis, on the ground that the standards of measurement are too variable. He thought the thermometric indications in the os uteri would prove of great value as aids in diagnosis.

Dr. Robert Battey stated that he was surprised that no gentleman had mentioned any of the following aphorisms in doubtful cases: (1st) Always consider a married woman pregnant, if living with her husband, until *proved* otherwise. (2d) Always consider an unmarried woman innocent till *proved* guilty. (3d) Always believe that a woman, married, of the highest character, living with a husband of equally high character, both solemnly assuring the medical man that no intercourse has taken place for two years, as she has been bedridden for that length of time, may bring forth a dead fœtus. (4th) Always believe a young unmarried woman with abdominal tumor of high social position and unimpeachable virtue, if she has been watched over by a platonic and abstemious young cousin of the male persuasion, while the mother went out, to be pregnant.

Dr. Battey sat down amidst great applause and laughter.

Dr. James R. Chadwick (chairman), of Boston, drew a diagram on the board of the pelvic organs, and illustrated his method of bi-manual examination.

Dr. Albert H. Smith, Philadelphia, drew a representation on the board of a thermometer made with an angle and guards for taking the temperature of the cervix.

Dr. J. R. Chadwick stated that he had noticed blueness of the vagina in many cases of pregnancy at various stages.

Dr. Alex. Dunlap, of Springfield, Ohio, is very careful about introducing the sound. He makes his digital examinations whilst the patient is standing.

Dr. R. G. Jennings, of Little Rock, Ark., wanted to know whether the uterine normal temperature is not higher than the rectal or sublingual.

Dr. A. H. Smith replied that it was not in pathological (except inflammation) or the healthy, unimpregnated states.

Dr. Johnson asked Dr. Dunlap to give his experience as to the blue color of the vagina in cases of fibroids.

Dr. Dunlap said that as he rarely used the speculum, he had none.

Dr. Johnson closed by making a few remarks on the subject, which the reporter failed to get.

Dr. Paul F. Munde, New York city, exhibited *a curette for the removal of adherent placenta after abortion*, designed by himself. He also exhibited a *speculum with a flange for holding up the buttock*, which he had had made; also two smaller curettes. He thought it best to remove the placenta reasonably soon if it did not come away in cases of abortion.

Here followed a long discussion on this point, which was participated in by Drs. Maughs, Dunlap, Marcy, Smith, Johnson, Erich, Chadwick, and G. McDonald, who said he was a "country doctor," and always removed them at once by means of instruments if he could not do so with the finger, as he could not see his patients often or quickly enough in dangerous cases. The other gentlemen agreed pretty nearly with Dr. Munde.

Adjourned.

PRACTICE OF MEDICINE, MATERIA MEDICA AND PHYSIOLOGY.

First Day—*May 3d.*—Dr. J. A. Octerlony, Louisville, Ky., Acting Chairman; Dr. T. A. Ashby, Baltimore, Md., Secretary.

Blood-Letting as a Therapeutic Measure in Pneumonia was the title of a paper by Dr. W. C. Wile, of Sandy Hook, Conn. He could not, in the limited time, say anything in regard to the etiology or diagnosis of pneumonia, but should confine his remarks to the consideration of a therapeutic measure. While he knew he was treading upon almost forbidden ground, and that he would meet with great opposition from the profession at large, he felt compelled to urge the importance of the *free use of the lancet* in pneumonia. He cited a typical case of what he called "acute catarrhal pneumonia," in which he had recommended the abstraction of blood in the first stage, but in which, owing to the opposition of the family, he had been unable to carry out the practice until the disease had advanced to the second stage, but even then

with the most marked and immediate favorable results. He reported twelve other similar consecutive cases, with like favorable results.

Dr. John J. Lynch, of Baltimore, thought, from Dr. Wile's description of his cases, that he had made a mistake in diagnosis, as they were evidently "*croupous*," and not "*catarrhal*" pneumonia. The Doctor was also probably mistaken in attributing the rapid recovery of his cases to the bleeding, because croupous pneumonia most frequently ends in from two to eight days by sudden crisis, and Dr. Wile's cases would probably have recovered just as soon without the bleeding. Dr. Lynch admitted that for rapidly extending collateral hyperæmia in pneumonia bleeding might be necessary, and was most efficient, but this was from the merely mechanical effect of the remedy, and in no sense curative. The disease would run its course afterwards in spite of the bleeding. He hoped he would never see the day when the profession returned to the sanguinary method of treating pneumonia, less than half a century ago, when the average mortality was more than 25 per cent., while by the modern, purely rational method, it was, in uncomplicated cases, not more than four or five per cent.

Dr. J. T. Whittaker, of Cincinnati, thought too earnest protest could not be made against this revival of venesection at this late period in the history of science. Pneumonia is now known to be a general disease, with a local expression in the lungs, just as typhoid fever is a general disease with a local expression in the intestines. There could be no justification of venesection in pneumonia, except upon the theory of a local inflammation. That pneumonia is, however, not a simple local inflammation, is proven by the fact that it differs in its temporal and sputial relations with local inflammations, like bronchitis, and that the local and general symptoms do not correspond in severity. The local signs may be slight, and the constitutional severe and *vice versa*, just as in typhoid fever or any of the exanthemata. Pneumonia prevails at all times and places, and occurs at all ages of life like the various infectious diseases, and modern pathology has put pneumonia in the category of the acute infections. It would be impossible, therefore, to do anything but harm by the letting of blood at any stage of the disease. How could the letting of blood clear up a consolidated lung by pounds of blood coagulated in its interior? The essayist has, evidently, mistaken the crisis for a cure. The crisis in pneumonia may occur at any time between the fifth and

eighth days, and often as early as the third, and neither blood-letting nor any other treatment could possibly cut it short. As for *veratrum viride*, that dangerous cardiac sedative, to which the speaker had alluded, it could do nothing but harm. What advantage is there in checking the force and frequency of the heart, when this increase in force and frequency is only compensatory, and is to be favored rather than checked? Pneumonia is due to a poison entering the blood and affecting the whole body, and no amount of blood-letting could let it out, any more than we can drain out the impurities of a stream with a bucket. Our illustrious professor of surgery (may the lustre of his name never grow less!) may succeed by the force of his genius in restoring venesection—the lost art, as he calls it—to a place in the domain of surgery, but in internal medicine it is hopelessly and irretrievably lost.

Dr. N. S. Davis, of Chicago, said that he had practiced medicine for nearly half a century, and that for fifteen years he had practiced venesection after the regular sanguinary method, and that he must say that he had found the best results from blood-letting in pneumonia when discriminately employed.

Dr. J. A. Octerlony, of Louisville, Ky., did not deny that cases are occasionally met with in which blood-letting is indicated, and will prove beneficial in relieving venous congestion; but he did not think Dr. Wile's cases sufficiently numerous to establish a law, nor were they reported with sufficient care to make them available. The first case, which the Doctor designated as *catarrhal pneumonia*, was evidently *croupous* pneumonia. Of the other cases, he gave no account of the physical signs, and so had left the Society in doubt as to the diagnosis. The first stage of the disease was the period during which Dr. Wile would have us bleed, because this was the stage of engorgement; but Dr. Octerlony claimed that even at this period exudation had already occurred, as shown by the physical signs, dullness, absence of vesicular murmur, and the presence of fine crepitant *rales*. Bleeding will not return this exudation to the vessels; this can only be accomplished by a vital process. The mortality in Dr. Wile's cases was 1 in 13—far greater than that resulting from the plan of *promoting the natural progress of the disease and supporting the strength of the patient.* The duration of his cases was not less, but greater, than our knowledge of the natural history of the disease shows to be the rule. He must insist that the writer had not proved his

proposition—viz., that pneumonia is a very fatal disease, nor that the mortality or duration of the disease have been diminished by venesection. On the contrary, it seems to be a well-established fact that pneumonia is a self-limited disease. The blood-letting plan of treatment used to give a mortality of 1 in 5; the purely expectant plan, 1 in 13. The plans he had here recommended gave, in Bennett's hands, a mortality of 1 in 36.

Dr. J. Herbert Claiborne, of Petersburg, Va., did not think we could fail to go astray if we followed the teaching of the gentlemen who always recommended bleeding, nor could we fail to go astray if we believe those who tell us never to bleed. The middle course was safest, and we should be guided more by experience than by theory. There was no one method of treatment applicable to all varieties of pneumonia. He was, nevertheless, satisfied that in some suitable cases he has succeeded in jugulating the disease by timely free venesection.

Dr. A. C. Post, of New York, said that in his opinion no dependence could be placed in statistics, as they were drawn from a class of patients found in hospitals, who had been badly clothed and badly housed and fed all their lives. We must be guided solely by experience. He could not sympathize with the gentleman who expressed the opinion that the lancet could no longer be used in medicine, for he believed that when properly and discriminately used, recovery was more rapid after bleeding.

Dr. Coleman, of Vermont, said that theotrically he believed in the lancet in a certain class of cases, but that in practice he did not meet with that class of cases where the blood was being forced into the lungs so rapidly as to produce strangulation, as he was not called in time to see them in that condition.

Dr. J. M. Quimby, of Jersey City, said that in all acute inflammatory cases where he used stimulants he lost his patients. Under a modified treatment he had lost not a patient. All cases where he had used the lancet, he had done so on the first or second day. He thought we did not often see these typical cases in the very first stages. We cannot treat patients as if they were machines. He advocated the free use of the lancet, when properly and timely used.

Dr. Whitney, of New York, said that when he first commenced practice he had felt it to be his duty to bleed all cases of pneumonia; since then he had to a great extent abandoned the use of the lancet. He thought the mortality had never

been so great before as since the abandonment of venesection. He thought we did not bleed half enough.

Dr. Ballou, of Rhode Island, had never used the lancet that he regretted it; but had often failed to bleed, and regretted it very much.

Dr. John North, of Keokuk, Iowa, always carried a lancet; he had never lost a case of pneumonia, and had never yet bled one.

Dr. S. K. Jackson, of Norfolk, Va., thought it objectionable to speak of blood-letting as a treatment of pneumonia: we ought to speak of it as an adjuvant or auxiliary. It was wrong to let it go abroad among the younger men that we had either advised against or for blood-letting.

Dr. S. D. Gross belonged to the younger members of the profession. He had listened with deep interest to the remarks made here. Pneumonia was an inflammatory affection, and the lancet, in such affections, was applicable in young, robust and healthy subjects. Bleeding was not applicable in *all* stages of pneumonia, but only in the commencement, when the disease was in its infancy—not later. We employed bleeding simply as an adjuvant, and under such circumstances we employ it wisely. If, however, we wait until consolidation has taken place, bleeding does harm, no matter what be the form of pneumonia, whether croupous or catarrhal. If bleeding was performed in time, and on proper subjects, it was the great remedy in this disease.

Dr. H. F. Lyster, of Detroit, Mich., did not think the practice of venesection so good as the theory. We did not bleed in cerebro-spinal meningitis, because we knew we should lose our patients; but we use the supporting treatment. He asked what was the difference between the two inflammatory conditions? He was surprised at so much advocacy of the lancet in pneumonia, and would like to see it dispensed with.

Dr. H. A. Martin, of Boston, trusted that it might go out to the world that the American Medical Association sanctions the *occasional* use of the lancet, at least.

Dr. Wile accepted from the gentlemen their diagnosis of his cases. He felt delighted to learn that pneumonia was such a pleasant disease to treat as those gentlemen who proscribed the lancet seemed to think it. The cases he had reported were of the class, and the only class, he had met with in Connecticut. He did not wish to be understood as saying that the lancet was the only mode of treating pneumonia, but that it was the only way of treating those cases of pneumonia with which he had come in contact in Connecticut.

SECOND DAY—*May 4th*—**Is Croupous Pneumonia a Zymotic Disease?**—Dr. A. F. A. King, of Washington, D. C., at the request of the author, Dr. Prentiss, of N. Y., who was absent, read the paper for him. He maintained that croupous pneumonia was a constitutional disease; that the lung affection was purely a local manifestation, and that, therefore, pneumonia must be classed among the zymotic and preventable diseases. The differential diagnosis between croupous and catarrhal pneumonia was dwelt upon, the writer claiming that the two diseases had only one point in common, viz: that in both there was an inflammation of the lung, and that, in fact, catarrhal pneumonia was merely a local disease, while croupous pneumonia was a constitutional disease, with a local (lung) manifestation. The specific cause of croupous pneumonia yet remained undiscovered; the disease must run its course, and treatment must, therefore, be symptomatic. He urged the importance of giving croupous pneumonia its proper classification in mortuary statistics.

Nature and Treatment of Pneumonia was the title of a paper by Dr. William C. Dabney, of Charlottesville, Va., the conclusions of which are as follows:

Two views are held as to the nature of pneumonia—one, that it is a specific fever; the other, that it is a local inflammation of which the fever is symptomatic.

Arguments in favor of the first view: (1.) The disease ordinarily commences with a chill. (2.) The constitutional disturbance is often out of proportion to the local disease. (3.) The disease usually runs a definite course, and is self-limited. (4). The disease occasionally occurs as an epidemic.

Traumatic pneumonia is precisely similar to the idiopathic form.

The indications of treatment in the first stage are: (1.) To lessen the amount of blood in the lungs and to check, as far as possible, the extension of the inflammation. (2.) To reduce the temperature; and (3.) To relieve pain. To fulfill the first indication, blood-letting diaphoretics, saline purgatives and cardiac sedatives are to be employed. To fulfill the second indication, quinine is the most important agent. To relieve pain, sinapisms, wet and dry cups and opiates may be resorted to.

In the second stage, the indications are: (1.) To lessen the consistency of the fibrinous exudation; and (2.) To prevent over-distension of the heart. To fulfill the first indication, alkalies, especially carbonate of ammonia, are to be employed. To fulfill the second, alcoholic stimulants are espe-

cially useful. Digitalis may also be used with advantage. If so much respirative surface is involved as to interfere seriously with respiration, oxygen should be used.

In the third stage, tonics, a nutritious diet, etc., are advisable.

The Chairman said that the reading of these two valuable papers having been finished, he would now call for the discussion on this, one of the most important subjects now before the medical profession.

Dr. J. S. Lynch, of Baltimore, said that the various arguments which go to prove that croupous pneumonia was a zymotic disease had failed to convince him that such was the fact. If it was a zymotic disease, then the treatment was a matter of little or no importance, and should be merely symptomatic; while if it was a local disease, the treatment was of great importance. He believed that it was often aborted by the use of the proper remedies, and he had often seen the so-called defervescence produced in a few hours by the use of veratrum viride.

Dr. J. T. Whittaker, of Cincinnati, classed himself with those who believed croupous pneumonia to be an acute infectious disease (not, of course, contagious). He states that catarrhal pneumonia attacks both extremes of life, the young and old; and croupous pneumonia, like all the acute infections, while sparing no age, attacks preferably the age of maturity. Catarrhal pneumonia occurs especially after measles or after bronchitis, while croupous pneumonia is an independent affection. Both forms concern the bases of the lungs more especially, and neither are at all frequently followed by cheesy degeneration and tuberculosis. The pneumonia which seizes upon the apices is tuberculosis from the start, and the tendency of the day is to ascribe this form of pneumonia to infection by a special virus.

Dr. Burlington, Vermont, did not think we could begin to treat the disease intelligently until we had determined its cause.

Dr. T. B. Lester, of Kansas City, Mo., had failed yet to hear the argument which convinced his mind that pneumonia was a zymotic disease. He thought, also, that the discussion yesterday proved conclusively that blood-letting was applicable to a very limited number of cases.

Dr. N. S. Davis, Chicago, had never been able to decide that pneumonia was zymotic, but he believed it to be local. He rose to protest against the course of reasoning pursued by some members. Even assuming that pneumonia was a

zymotic disease and ran a definite course, this was no reason why it might not be cut short, and the physician had no right to fold his hands and do nothing because of such reasoning.

Dr. Lynch, of Baltimore, approved of Dr. Davis' remarks, but thought that, in the present state of our knowledge, we were not justified in using any remedy about which we were uncertain in an attempt to cut it short. In reference to the use of alkalies in pneumonia, he believed them to be valuable, particularly carbonate of ammonia, in certain stages of the disease, but not in the initial or even second stage.

Dr. Octerlony said that it seemed to be settled by discussion that if pneumonia was a zymotic disease it could not be cut short, but if local, it could. Pneumonia, he thought, was a self-limited disease. In regard to the zymotic character of the disease, he must confess, his mind had not been convinced; he thought it local. He wished to call attention to the danger of death from heart-clot. He thought carbonate of ammonia useful in other stages besides the third.

Dr. Alfred Ball, of Zanesville, Ohio, thought the idea of pneumonia being a self-limited disease, and founding treatment upon that idea, to be exceedingly erroneous and calculated to do great harm. He thought the disease could be cut short, and called attention to the method of treatment by repeated emetics early in the disease, and claimed that it was valuable in aborting the disease.

Dr. Hugh McCaul, of Lapeer, Mich., thought that in his section venesection was not admissible, and that cardiac sedatives must be used with extreme caution. He did not think the disease was purely zymotic, but thought there was a zymotic condition of blood which tended to produce it.

Dr. Whittaker asked, if pneumonia was a local disease, what caused it? Certainly exposure did not. We had, he thought, no right to call it a local disease until we knew its etiology.

The Secretary read by title a paper by Dr. Robertson, of New York (who was absent), entitled "*Nature and Treatment of Pulmonary Phthtsis.*" Referred to committee.

Dr. L. Duncan Bulkley, of New York city, read a paper on *Diet and Hygiene of Eczema*, [which we take pleasure in announcing will be published in full in the July number, 1881, of the *Virginia Medical Monthly.*]

THIRD DAY—*May 5th.*—**Treatment of Diphtheria.**—Dr. J. T. Whittaker, of Cincinnati, O., read a paper on this subject, taking the ground that diphtheria was first a local and after-

wards a general disease; that it is only when the epitheliel barrier is broken down that the blood and the body become infected. He maintained that the poison passes into the blood little by little, new quantities reinforcing the first instalments until the blood is super-saturated with the disease. The treatment therefore resolved itself into treatment of the poison at the local depot and relative neutralization of virus in the blood. The efficacy of the antiseptics, quinia, salicylic acid, and the benzoates was next detected by the experiments with the latter of Buckholtz and Graham Brown, whereby it was shown that saturation of the blood with the benzoates renders inoculation impossible. The essayist next maintained that although we could not kill the germs of the disease in the throat, we could so condense its mucous membrane as to make it a dam to the influx of the disease. To effect this purpose he recommended the persulphate of iron in full strength, applied well up behind the velum palati. Though the persulphate of iron was one of the oldest recommendations of practical medicine in the treatment, he believed its occasional inefficacy and present comparative disuse to be due to the dilution of the solution. He knew very well the fallacy of basing conclusions upon experience, and mentioned the fact that he had never had a fatal case since the use of this treatment, and that he had never seen any accidents incidental to the treatment.

Dysentery.—Dr. J. A. Octerlony, of Louisville, Ky., did not believe in the contagiousness of dysentery, nor did he think that bacteria were always present in the evacuations. Neither did he think it was due to malaria or scorbutus, though either one might complicate it. In spite of Dr. Austin Flint's forty-four cases (and the writer deemed this number too small for a basis of belief), he thought dysentery might occur at any season. He does not think that there is any clinical difference between catarrhal and epidemic dysentery. The tendency of the disease, when influenced by treatment, was towards recovery. The first indication of treatment was to get the bowel into a proper condition to receive medication; second, diet; third, rest; fourth, demulcents; fifth, control of morbid processes. Ipecac was, he thought, unnecessary in the majority of cases met with in common practice. Ergot, coto bark, injections, suppositories, etc., all received due mention.

A paper by Dr. I. E. Atkinson, of Baltimore, Md., on the **Production of Albuminuria by Use of Iodide Potassium in Syphilitic Disease,** was an exceedingly valuable contribution, show-

ing great research, and provoked a very interesting discussion, in which many members took part.

Dr. Whittaker did not think anything more than a transient albuminuria would be produced by the use of the potassium, but thought it was more likely caused by renal cirrhosis. It would certainly be more in accordance with our present knowledge of pathological anatomy to attribute these cases to the disease, and not the remedy.

Dr. Octerlony wished to emphasize the fact that albuminuria was not a disease, but merely a symptom—one that might occur in perfectly healthy persons.

Dr. Lynch, Baltimore, was surprised to learn that iodide of potassium was accused of producing albuminuria. He always used iodide of potassium in half-grain doses in chronic Bright's disease, and always with happy effect.

Dr. John W. Dillard, of Lynchburg, Va., corroborated the statement of Dr. Lynch.

Dr. Atkinson said that he did not bring any charges against the use of iodide of potassium in general, but merely made an inquiry into one special use of it, with the view of showing what he thought was one of its disadvantages. He regarded iodide of potassium as one of our most valuable remedies, and when it produced changes in the mucous membrane of the kidneys, he attributed it to an idiosyncrasy of the patient.

Dr. Henry A. Martin, of Boston, read a paper upon the **Variola Vacciniæ and Variola Equinæ in Massachusetts.**—In this paper the Doctor reported a series of cases of cow-pox, which were, so far as he knew, the first authentic cases reported in this country. He also reported a case of variola equinæ, the seventh authentic case since the days of Jenner.

In conclusion, the Doctor moved that this Section recommend to the Association that a committee be appointed to visit these various farms and investigate the whole subject of bovine virus, as it was one subject to many and great abuses. Carried.

Dr. H. Augustus Wilson, of Philadelphia, then read a paper entitled **Soluble Compressed Pellets, a New Form of Remedies for Hypodermic Use, and Applicable to Ophthalmic and General Medication.**—He spoke of the objections to the use of solutions, patented gelatine discs and powders in hypodermic and ophthalmic use, and stated the advantages of the soluble compressed pellets. The sodium sulphate was used, he said, because it gave increased bulk and acted as a disintegrator, for, on coming in contact with water, it

quickly dissolved and left the morphia or other substance used in a fine state of subdivision, ready to be dissolved. They were readily applicable to ophthalmic and general administration, and he had not seen any bad results from their use. Dr. Wilson claimed that the advantages of his method over any other known were: (1) The convenient size of the pellets; (2) Their immunity from change; (3) Their accuracy of contents and dose; (4) Their certainty and rapidity of action; (5) That they must be used by the mouth; (6) Their adaptability to ophthalmic medication. The use of the pellets for more than a year for hypodermic, ophthalmic and general medication had convinced the speaker that their judicious use would tend to banish the changeable solutions and the equally inconvenient powders.

The Materia Medica of the Future was the title of a paper by Dr. F. E. Stewart, of New York. He maintained that the physician should know the methods of manufacture of drugs. The profession is under many obligations to pharmacy for the elegant preparations of drugs. It is the physician's prerogative to treat the sick, and to dictate how his medicine should be prepared. The code of ethics of the profession prohibits the prescription of secret formulæ, or hold a patent on an instrument. But trade has so affected pharmacy by patents, copy-rights, trade-marks, secret formulæ, etc., that a physician is obliged to stultify himself to gain the advantages of many of the improved forms of medicine Either the code should be altered, or the methods of trade should be changed to meet the requirements of the code. If the patent system be admitted by the profession, the protection by law should be limited, and under the same restrictions as applies to other trades, and the exact working formulæ made known; or else no druggist should be allowed to prescribe for the sick, and no physician should prescribe patent medicine whose nature was unknown.

The following resolution, offered by Dr. E. S. Dunster, of Ann Arbor, Mich., was adopted:

"*Resolved*, That the spirit of the code of Ethics forbids a physician from prescribing a remedy controlled by a patent, copy-right, or trade-mark. This, however, shall except a patent upon a process of manufacture or machinery, provided patent be not used to prevent legitimate competition; and shall also except use of a trade-mark used to designate a brand of manufacture; provided that the article so marked be accompanied by working formulæ, duly sworn to, and also by a technical, scientific name under which any one can compete in manufacture of same."

Dr. Upshur, of Richmond, Va., read the **Report of a Case of Paralysis of Motion of Both Upper Extremities** in which the prominent symptoms were complete paralysis of motion of both upper extremities *except in the hands*, intense pain in the shoulders on any attempt to lie down, and inability to sleep. The attack was ushered in by convulsions epileptic in character.

A paper by Dr. George R. Shepherd, of Hartford, Conn., giving his clinical experience in the use of *Uncooked Food Extracts*, was read by title and referred to the Committee on Publication.

Adjourned.

The American Surgical Association met Thursday evening, May 5, at 5½ o'clock in the hall of the House of Delegates. Dr. S. D. Gross, of Philadelphia, presiding, and J. R. Weist, of Indiana, secretary.

Dr. Ketchum moved that the next meeting be held at the Oriental Hotel, Coney Island, N. Y. Dr. Davis, of Lancaster, Penn., proposed Philadelphia as the place of meeting. Dr. Hunter McGuire, of Richmond, Va., proposed the White Sulphur Springs. Dr. Briggs, of Nashville, Tenn., proposed Cape May, N. J. Long Branch, the Arkansas Hot Springs, Manchester, and various other places were also proposed. No action was taken on this subject, as it was moved that the roll of members be first called.

At the request of the President, Dr. Packard read the Constitution and By-Laws.

On motion of Dr. Davis, the Constitution and By-Laws, as read were unanimously adopted. Under this Constitution, surgeons known as "specialists," are allowed to become members of the Association. Under the old Constitution, that class of surgeons were excluded.

Drs. Marcy and Martin, of Boston; and Watson, of Jersey City, were recommended for membership.

Dr. Packard, the treasurer, reported that he had received $925 from members, which, with the interest ($9.25), was deposited to the credit of the Association in the Philadelphia Savings and Trust Company.

An amendment to the Constitution was adopted, to the effect that all nominations for membership shall lie over until the next regular session.

Several bills were ordered to be paid.

The Oriental Hotel, Coney Island, New York, was selected

as the place for the next annual meeting. The 13th, 14th and 15th of September was selected as the time.

The Association adjourned.

The following is the list of officers of the Society; Samuel D. Gross, President; Drs. S. A. Dugas, 1st Vice-President; James R. Wood, 2d Vice-President; J. R Weist, Recording Secretary; W. D. Briggs, Cor. Secretary; John H. Packard, Treasurer.

Council.—Drs. Moses Gunn, John T. Hodgen, Hunter McGuire, J. C. Hutcheson, Samuel D. Gross, J. R. Weist, R. A. Kinloch.

The American Medical College Association met on May 3d; but as there was not a quorum, it adjourned until May 4th, 1881.

On May 4th, at 9 A. M., this body met, and, as anticipated, there was quite a full attendance.

The meeting was called to order by the President, Prof. S. D. Gross, M. D., of Philadelphia; Prof. Leartus Connor, of Detroit, acting as Secretary.

On motion, the regular order of business was suspended for the purpose of going into the election of officers for the ensuing year. This resulted in the following selections:

President, Prof. J. M. Bodine, of the Medical Department of the University of Louisville, Ky.; *Vice-President*, Prof. W. T. Briggs, of Nashville, Tenn.; *Secretary and Treasurer*, Prof. Leartus Connor, of Detroit, Mich.

Secretary Connor's report was then presented and received. It shows an increase of two in the active membership of the Association since the last annual meeting. From the reports of the several colleges made to the Secretary, it appears that these institutions had conformed more universally and completely with the requirements of the Association than heretofore, and that everything pertaining to their connection with the body was entirely satisfactory. He also reported a balance of $90 in the treasury.

On motion, the Secretary's expenses during the Association were ordered to be paid.

The report of the Committee on Medical Colleges showed that sixty-four catalogues of colleges had been examined, and that only sixteen of them had failed to come up to the Association's requirements in the matter of graduation. It also appeared that twenty-two of the colleges had surpassed these requirements in one or more of the three following particulars: First, matriculation examinations; second, nine months

regular attendance; third, the three regular terms required.

After the transaction of some unimportant business, the Association adjourned until 5 P. M.

Upon the assembling of the Association at half-past 5 o'clock it was found there was no quorum present. After waiting some time, and a quorum still being needed, the body adjourned, subject to the call of the President.

The Association of Medical Editors met at Exchange Hotel on Monday evening at 8½ o'clock. In the absence of Dr. J F. Shrady, President, Dr. Octerlony was called to the chair, Dr. D. S. Reynolds, Secretary.

Dr. Shrady's address was read by Dr. Carpenter, and, on motion, it was ordered that the same be printed.

The Committee on Necrology (Drs. Dunster, Cole and Edwards), was appointed. The committee reported the death of Drs. Davis and Cowling during the past year, and requested indulgence for the preparation of their report on memoirs, which was granted.

The Committe on Nominations of Officers for the ensuing year reported as follows: President, Dr. Landon B. Edwards, Richmond, Va.; Vice-President, Dr. Ralph Walsh, Washington; Secretary, Dr. D. S. Reynolds, Louisville.

After an interchange of views, the Association adjourned to meet on the Monday evening preceding the annual meeting of the American Medical Association in St. Paul, Minn., in 1882.

Entertainments—*Westmoreland Club.*—The spacious parlors of the Westmoreland Club, of this city, were thronged on Tuesday night, May 3d, 1881, on the occasion of the reception tendered by Dr. and Mrs. Jas. B. McCaw and Dr. and Mrs. Hunter McGuire, to the members of the Association and ladies. Despite the inclement weather, the kind invitation of the hospitable hosts and their ladies was accepted by nearly all of the delegates in attendance, and from 8½ until nearly 11 o'clock, the arrivals continued, nearly every hack in the city having been brought into requisition for the festive occasion. The display of rare, beautiful and fragrant flowers was profuse. Kessnich's full string band furnished excellent music, and enlivened the occasion with their sweetest strains. The supper table was bountifully supplied with all seasonable foreign and domestic luxuries. The hosts and hostesses received their guests in the most charming manner, and made each and every one feel perfectly at home.

Many of the ladies toilets were exquisite, and all were beautiful and in good taste. Most of the gentlemen were in full evening dress. The reception was announced to be from 6 to 12, midnight, but it was after that hour before the last of the happy guests retired. The beauties and elegance of the club-rooms was the subject of universally favorable comment on the part of all who attended. The reception was voted by unanimous consent one of the most pleasant and successful social events in the history of Richmond.

"*Doctor of Alcantara*," was rendered on the night of May 4th at Mozart Hall by an amateur corps, and was highly appreciated by the very large audience in attendance.

The Grand Reception.—The Theatre never contained a more fashionable and brilliant gathering than that which was assembled on the night of May 5th within its walls. The occasion was the reception tendered the members of the Medical Association by the medical profession and citizens of Richmond. The decorations were of the most elaborate and gorgeous description. The National flag was conspicuously displayed, as were the State flags of every State in the Union. The floral decorations were of the most profuse character, and embraced every variety of rare, beautiful and fragrant exotics. A full orchestra, under the able direction of Mr. Jacob Reinhardt, made melodious music, and contributed in no small degree to the joy of the occasion. The banquet was enough to satisfy the appetite of the veriest epicure, while the liquid refreshment was not only bountiful, but of the very best vintage. The committee of physicians and citizens, seconded by the ladies, were assiduous in their efforts to please. Richmond's best society was represented by all of the learned professions and by leading representatives of its intelligence, wealth, and honest industry. This was one of the most notable social events in the history of the city, and was fully appreciated by our honored guests.

Excursion.—At 1 o'clock P. M., May 6th, a goodly company was gathered at the depot of the Richmond and Alleghany Railroad, and placed themselves under the care of the officials of this, the youngest, and about the most enterprising railroad in all the country. The road runs along the margin of the James river, and there is not a more attractive stream in Virginia. The excursionists, we are happy to know, were delighted with their hosts.

The Exhibitors who had displayed for the several days at No. 1007 Main street, were on Friday at midday con-

ducted to the Commercial Club and there entertained by the Local Committee—Messrs. T. Roberts Baker, Polk Miller, Norman V. Randolph and Montgomery West, and also M. S. Valentine, who, though not a member of the Committee, was permitted to act in part as host.

The firms represented in the exhibition were Purcell, Ladd & Co., T. Roberts Baker, Randolph & English, Mann S. Valentine, Richmond, Va.; Dr. D. G. Brinton, of Philadelphia; W. H. Schiefflin & Co., New York; John Wyeth & Bro., Philadelphia; John F. Hancock, Baltimore; McKesson & Robbins, New York; John Reynders & Co., New York; Theodore Metcalf & Co., Boston; Dr. Jerome Kidder, Geo. Tiemann & Co., G. P. Putnam's Sons, Wm. Wood & Co., Charles T. White & Co., and Fairchild Bros., of New York; I. B. Seeley, of Philadelphia; Col. Thos. F. Goode, (Buffalo Lithia Water), Va.; W. A. Warner & Co., Philadelphia; McIntosh Galvanic Belt and Battery Company, Chicago; E. F. Houghton & Co.; H. C. Lea's Sons & Co., of Philadelphia; E. J. Knowlton & Co., of Ann Arbor; Trommer Extract of Malt Company, Fremont, Ohio; Spotts & Gibson, Richmond, for Rumford Chemical Works, Providence, R. I.; Parke, Davis & Co., Detroit, Mich.

Mr. T. Roberts Baker, on behalf of the Committee, extended the hospitalities of the Club to the visitors.

After a pleasant hour spent in social intercourse and the discussion of the lunch, the visiting guests expressed their appreciation of the courtesy in a resolution of thanks.

The several exhibitors have been most fortunate in the selection of their representatives at this Session of the American Medical Association; and in passing, it may not be amiss to say that these courteous and well-informed gentlemen have been most successful in making popular the houses they represented.

Several private entertainments were given by the doctors and citizens.

STATE MEDICINE.

First Day—*May 3d.*—Chairman, Dr. J. T. Reeve, of Lansing, Wis.; Secretary, Dr. R. G. Jennings, Little Rock, Ark. Dr. Jennings called the Section to order, and read a letter from Dr. Reeve, regretting his inability to attend. The Section then adjourned until to-morrow afternoon.

Second Day—*May 4th.*—Dr. J. S. Billings, of Washington, D. C., Surgeon U. S. A. Chairman *pro tem.*

The National Board of Health and the International Sanitary Conference of 1881, was the title of a paper read by Dr. James L Cabell, of the University of Virginia, and President of the National Board of Health. He alluded to the illiberal action of the National Congress in reference to the National Board of Health, and spoke of the success that had attended the efforts of New York physicians for the establishment of a State Board of Health. He also gave a history of the establishment of the National Board, and the reasons why it had not secured sanitary regulations in States which had not established State Boards; and stated the reasons which impelled the calling of an International Sanitary Conference. He gave a very interesting account of the proceedings of that Conference, and the good work accomplished by it. [This Conference met at Washington the latter part of January and the first of February last.] After dwelling for some time upon the work prepared at the Conference, Dr. Cabell concluded as follows: "There is, therefore, good reasons for hoping that an international agreement may be arrived at between the States most frequently threatened with epidemic invasions. And, aside from this, the degree of attention which, as a result of the deliberations of the Conference, has been given to the subject of maritime sanitary police, cannot be without fruit in securing greater cleanliness, better ventilation of ships sailing on the high seas, and in general, an improved sanitary condition of these important instruments of commerce, which become so often the carriers of the most deadly contagion, from the failure to use such precautions as sanitary science suggests, and as it is hoped will now be enforced among the maritime powers of the world."

The Relation of the State to the Insane was the title of a paper presented by Dr. C. F. Folsom, of Boston. He spoke of the difference adopted at this time in the treatment of the insane, and that which was formerly adopted. He also gave valuable statistical information as to the number of insane in various sections of the country. He argued in favor of the establishment of State Lunacy Boards. Among the points made were, first of all, that a lunacy board should embrace men with a thorough knowledge of insanity and its treatment. The chief duties of this board should be to secure proper care for the insane in private dwellings, where they are very liable to neglect. Secondly, they should require the commitment of lunatics to the asylum by necessary copies of the commitment papers, and otherwise looking into the cases, so as to be able to tell whether the lunatic should be retained for care or be discharged.

Dr. Eugene Grissom, of Raleigh, N. C., made the point that, if insanity is treated promptly, as other physical diseases are, it is comparatively curable; but the custom is to delay action too long. One reason of this is that some people seem to think it disreputable to have an insame person in the family. When insanity is recognized as a purely physical disease and treated as such, more cures will be effected. The people must be educated to understand that to be insane is no cause for odium.

THIRD DAY—*May 5th.*—Papers on "*Cellars*," by Dr. A. N. Bell, of New York city, and on "*The Necessity and Means of Removing Putrescible Matters from Inhabited Places*," by Dr. O. W. Wright, of Milwaukee, Wis., were received by the Secretary and turned over to the Permanent Secretary.

At 4 P. M., in consequence of the small attendance, Dr. Jennings, after consultation with those present, declared the Section adjouruned until the next annual meeting.

Correspondence.

A Few Words in Defence of Some New Surgical Instruments.

Mr. Editor,—Every candid and true lover of a profession he may have chosen, should ever feel pleased and honored by every just and sincere criticism that may be bestowed upon him by his worthy peers. It is their consideration and criticism of his labors and study in any direction which may be for the good of the profession that enables him to arrive at a correct estimation of his abilities in such efforts.

In the report of the *New York Medical Record* of the new surgical instruments which I had the honor to present before the honorable American Medical Association at Richmond, May 3, it is implied very strongly that my new iustruments were unfavorably criticized in many particulars, which I, as the one criticized, failed to hear. The report also differs materially from that made in other journals, for instance in the *Philadelphia Reporter* and the *Virginia Medical Monthly*. But, for the sake of not entering into unseemly discussion, we will allow for the present that you have given your readers a correct report.

My friend, Dr. Sayre, very honorably asked about and criticized the vermicular pointed instrument designed for detecting stone in the bladder.

My friend, Dr. J. W. S. Gouley, coming into the meeting

very late, as he afterwards confessed to me, and not hearing the description that I gave of the instruments, condemned them more from their general appearance than from any knowledge of their use or design.

I am willing to acknowledge that I should give the most superficial criticism upon the first sight of many of the great variety of surgical instruments. Who, for instance, would suppose that the ordinary catheter, curved, as it is, could be passed into the human bladder, and who would, at first sight, suppose that it would be a useful instrument for evacuation of the bladder? Suppose that Dr. Gouley, or any other gentleman, should come in after Prof. Sayre had completed his lecture on spondylitis or on disease of the hip-joint and should see, as we have all seen upon the stage at every good and proper opportunity, a tripod with pulleys attached and a boy lying upon a lounge at some little distance, while near the tripod was a pail containing plaster of Paris bandages and water; and suppose he should offer his opinion and criticism upon the instrument and scene before him, might he not most naturally wonder whether the tripod was to hang the little boy with, or insist that it was not necessary to whitewash the canvas, as there was no appearance of seeking disease on any part of the stage or its scenery, and would not such criticisms be about as just on the true merits of the application of plaster of Paris in spondylitis, a treatment which does the inventor honor and is worthy of the great name of its devisor, Dr. Sayre, as the criticism that was offered upon my instruments? Had he had an opportunity of hearing the description of Dr. Sayre's operation, how much would his criticism be changed from the hasty opinion we have supposed him to venture hap-hazard, and after hearing the description of my instruments, he might very naturally change his opinion about them?

It has also been said that my instruments are complicated and liable to convey disease in their joints. In answer to this, we need only say that any one, upon examination, can easily see that the instruments are of the most simple arrangement, combining the wedge and screw in shape, and moreover, can be very readily washed and cleansed after any operation. Thus the objection of septic poisoning exists only in the vivid imagination of my critic. From their construction, they open any passage before them with great ease, and, as I have said before, avoid friction by presenting to the mucous surface but a small portion of the instrument at any one time, thus allowing the body of the instrument to follow

with great ease through any strictured canal. The point upon the sound for detecting stone, besides performing the above duties, is to the staff what the ear-portion of the telephone is to the wire, and enables us to employ in our diagnosis both the senses of touch and hearing, giving us the use of two senses where we have only one with the ordinary sound. We thus perfect rather than diminish the acoustic properties of the sound. This is, however, a matter of little moment. Some depend upon the stethoscope for diagnosis in chest diseases, while others, including myself, can make the best diagnosis with the ear close to the chest. Yet this does not by any means condemn the stethoscope.

To offset the criticisms made by the above gentlemen for my good and the good of the profession, I would say that these instruments have been shown on both sides of the ocean to numerous gentlemen, in every way the equals and peers of my present critics. They have most heartily praised and approved them wherever they have seen them, expressing the opinion that they would well answer the various operations for which they were designed. They were admired for their simplicity and originality in construction. From the hundreds of medical gentlemen to whom I have shown them, I have never before received an unfavorable criticism, and I would further add, that I have in my possession letters from operators, who are considered in Europe and America leaders and teachers in surgery, approving them. I would mention one in particular from Thomas Bryant, of London, the well-known author of a *Practical Surgery*, who operated with what few instruments I had with me upon two cases of stricture before some professional gentlemen assembled in Guy's Hospital last August. In his letter he says: "Your herniotome and rotary, wedge, needles and catheters I like much."

I must say that, after receiving this letter and many others, as well as receiving commendation from many distinguished men in person, I feel that some little spirit of animosity moves these recent criticisms, particularly as a gentleman, in speaking of the instruments of another Bostonian presented in Richmond, said he did not see their value even if they were devised in *Boston*. These criticisms would seem, then, rather against the locality than their designer, and, in their logic and prejudice, remind me of a passage in English history when Cromwell dissolved the Long Parliament. Harry Vane crying out that such action was dishonest and against morality, Cromwell, in his prejudice and hatred,

cried in a louder voice "Harry Vane, Harry Vane, the Lord deliver me from Harry Vane;" whereupon the wise counsels and executive ability of that noted baronet were lost to the government and society.

Every one who presents a new operation or new instruments to the profession would seemingly offer himself as a prize for criticism, and must meet with opposition. Such has always been the record, and the present is no exception. Dr. Sayre, when he first offered his operation for spondylitis, met with opposition from the very men who are now grateful to him for his gift to humanity. Bigelow, who was the first to establish the toleration of the human bladder in the operation of removing stones at one sitting, was only a few months ago severely handled by some surgeons of distinction in Europe, who, in conversation with me, ridiculed him for his large tubes and heavy lithotrite. Yet these same men, if reports are true, are to-day using successfully his new ideas and instruments in the operation of removing stone, and by such endorsements are conceding to him the honor of bearing the fairest palm and of wearing the brighest crown of all living operators. Dr. Battey, of Georgia, whose operation of "spaying" for the removal of ovaries was criticized almost unfeelingly, and who heard great doubts expressed of the propriety of his operation from no small number, has triumphed over his discouragements until he is well and gratefully received as one who has conferred great benefits upon women by his operation, and to-day is receiving the worthy credit and fruits of his genius, so that he has been invited to present his operation before the coming British Congress. And I am confident that the future will see the instruments I have devised in the hands of the very men who now rise up in hasty criticism and condemnation of them, and that every time one passes them into a strictured urethra, uterus or œsophagus, credit, thanks and praise will be given to their designer and inventor. I feel, as every conscientious person must, that in the end justice will triumph in behalf of him who is not deterred by every hasty criticism.

As a proof of this, my hernial instrument is already in the hands of a vast number of medical gentlemen, and very extensively and successfully used by them.

In conclusion, I would say that I do not wish to offend by any personal allusion in this article, nor do I wish to enter into any controversy. I have written this that "both sides of the question" may be heard, and that a fair representation of the case may be made to the profession; and if I succeed in this, my object has been attained.

The instruments in question are now in the hands of the profession, and the proof of their merit or demerit will be given by their actual use for their legitimate purpose.

Boston, Mass. JOS. H. WARREN, M. D.

Dr. J. Marion Sims, we are glad to learn by a personal letter, has sufficiently recovered his health to enable him to start on a European trip June 2d. We wish him a pleasant trip and a speedy restoration to health and his profession.

Obituary Record.

Dr. Charles Macgill.—At a regular meeting of the Richmond Academy of Medicine, held May 17, 1881, Drs. J. S. Wellford, O. Fairfax and J. G. Skelton were appointed a committed to draft a series of resolutions, expressive of the feelings of their professional brethren with regard to the death of Dr. Charles Macgill, and they reported as follows:

Again, after a brief interval, in the dispensation of Providence, is the medical profession of Richmond called on to mourn the departure from their midst, of one who has borne the heat and burden of the arduous duties of their professional life, and who, for many years, has not only in this community, but also in a sister State, struggled—yea, most manfully struggled—to diminish human suffering and procrastinate the approach of the inevitable doom which hangs over us all. He was a man of no common mark; his known courage, his gallant conduct and his reckless disregard of consequences, when convinced that duty dictated his line of conduct, proved him a man of heroic character, and whose departure is no insignificant loss to any profession; therefore,

Resolved, That the Richmond Academy of Medicine, in the death of Dr. Charles Macgill, formerly of Hagerstown, Maryland, but for many years a skillful and eminent practitioner of this city, recognize and acknowledge that our professional ranks have suffered the loss of one who, by his acquiescence in the stern requirements of duty, in peace and war; his inflexible regard for truth and his devotion to his profession, has earned for him a high position in our hearts and our affections.

Resolved, That a copy of these resolutions be forwarded to the family, and also be published in the *Virginia Medical Monthly*. H. H. Levy, President; C. H. Shields, Secretary.

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Original Communications.

ART. I.—**Diet and Hygiene of Eczema.*** By L. DUNCAN BULKLEY, A. M., M. D., Attending Physician for Skin and Venereal Diseases at the New York Hospital, Out-Patient Department; Late Physician to the Skin Department, Demilt Dispensary, New York, etc.

That articles of diet have a direct effect upon the skin, for good or evil, I think there can be no doubt in the minds of those who have given any thought to the subject; and that hygiene, in the broadest sense of the word, can exercise a like effect, is also evident. But these subjects, as yet, have received very little serious thought or attention from the profession, and very few directions are found in the books bearing upon the subject of skin diseases. The matter following, therefore, represents to a very large degree the personal views and experience of the writer; and, although the subject is yet in an undeveloped state, enough already is known to enable one to give directions which shall be of more or less value.

*Extracted from the forthcoming work by the writer on *The Management of Eczema.* Read before the American Medical Association, Richmond, May 4th, 1881.

We will speak first of diet, and afterwards develop the subject of hygiene.

All are more or less familiar with the acute erythema or urticaria, resulting in some persons from the ingestion of some forms of fish, particularly shell-fish; also, occasionally from strawberries, bananas, etc. Some individuals are so constituted that, whenever these are partaken of, the eruption will appear, while many others are thus affected only when the articles are stale, or when they themselves are in a peculiarly susceptible condition. It is also well known that buckwheat calls forth a pustular eruption in some persons, and the crops of acne, which follow gross indiscretion in diet, as from the partaking largely of fruit-cake, mince-pies, sausages, cheese, nuts, etc., are of daily observation on all sides. We also recall the eruptions produced by the internal administration of some articles used as drugs, such as copaiba, quinine, belladonna, iodide and bromide of potassium, etc. The skin lesions occasioned by all these are transitory affairs, very evidently depending upon the causes mentioned, disappearing as a rule spontaneously, when the causes cease to act.

Now, just as these acute disorders of the skin are produced by acutely acting dietary causes, so a chronic error in diet can, and often does induce, or at least keep up, a more chronic cutaneous lesion, which of necessity will return as often as a conjunction of causes acts with sufficient force. The most evident and well-recognized association of dietary error and chronic lesion of the skin is in the case of scorbutus, where the hæmorrhagic tendency in the skin and other organs is plainly due to the deficiency in the vegetable portion of the diet. A but little recognized, although important elementary cause of skin lesions is the use of alcohol, which has been shown to be a most important factor in the appearance of the cutaneous manifestations of syphilis, as well as of other diseases of the skin.

Exactly in what manner diet has its influence upon the state of the skin cannot, of course, be accurately stated at present; but from what is known of the acute skin symptoms previously alluded to, we may conclude that there are

four methods by means of which this result may be obtained: First, we may have a direct irritating action from ingestion on the stomach and intestines, giving rise to reflex cutaneous eruptions, resulting in erythema and urticaria, as in the eruption from shell-fish, strawberries, and other articles alluded to. These eruptions sometimes vanish very promptly when the offending mass is rejected from the stomach, or removed by purgation. Second, we may believe that certain elements act directly upon the skin tissues, as probably alcohol, buckwheat, bromide and iodide of potassium, etc. Third, articles of diet may produce indigestion, giving rise to the products of imperfectly elaborated material, which then have a direct irritating effect by their circulation through the capillaries, as in the acne following indulgence at the table of such articles as pastry, cheese, sweets, etc. And, fourth, the error in diet may consist in the absence of certain elements of food, as in the case of scorbutus. This is most strongly illustrated in strumous eczema, in which a full supply of fatty matter will often alone restore the healthy condition.

Dieting, as ordinarily understood, represents a starvation process, which is to be continued, for a longer or shorter period of time, with a view, as it were, of starving out a disease. The definition of the word diet in Webster's Dictionary is, "to eat and drink sparingly, or by prescribed rules." In the present connection, it will be readily seen that the word diet has a broader meaning, and signifies *such a regulation of the quantity and quality of the food and drink taken, its mode of preparation, and the time and method of its consumption, as shall conduce to the restoration and maintenance of health.*

There is no question whatever in my mind that proper dieting, as understood in the above definition, is of the very greatest importance in the management of eczema. Not only are articles, which experience has proved to be injurious, to be avoided, but other articles, which are often erroneously avoided, are to be taken, in order to form a total of healthy life. Defective assimilation and disassimilation are beyond doubt important factors in the production and continuance of eczema. These defects are to be remedied, not

by medicine alone, but by the regulation of every element which enters into the nutrition of the body. Given perfect nutrition, and eczema disappears. Perfect nutrition cannot be attained, then, by drugs alone, if the supply from whence the tissues are formed is in itself faulty.

Undoubtedly a healthy appetite and good judgment are reliable guides in the majority of instances for the maintenance of health; but unfortunately every one does not possess one or both of these, and the surroundings of modern society will often greatly influence individual caprice in one way or another. The patient with eczema has, in the vast majority of instances, committed errors of diet, and is still committing such, which, if they do not render the disease incurable, certainly retard its cure. There is no doubt that the gouty patient has produced or aggravated his disease by the pleasures of the table, or by his mode of life. There is no doubt that many strumous and rachitic persons have become so by their diet and mode of life. There is no doubt, again, that the neurotic patient has induced his state to a very large degree by his habits and mode of life. Eczema is related to these three states, and in the strictest investigation of the diet, hygiene and mode of life, and in the proper regulation of the same will be found the surest road to perfect and complete restoration to health.

The first point alluded to in our definition of diet was a regulation of the *quantity* of the food and drink taken. I am convinced that in no small share of the cases of eczema in private life, that the quantity of food taken is rather in excess than in deficiency. In answer to the question, often put, if these patients had dyspepsia, they will say that they are not troubled unless they eat too much; and it will often be found that in these cases it is not the nourishing and healthful articles of food that are in excess, but such as are found in desserts. Witness the very common remark when a very tempting dessert is offered: "I have had enough to eat, but that looks very good; I will try a little." And so it is that the digestive organs are continually taxed just "a little" beyond their powers. Not every one discriminates between taste and appetite; the taste is gratified long after the appetite is satisfied.

When the infant is overfed, through the indulgence of its mother whenever it cries, it rejects its food by a natural process, and thereby saves much sickness. The gourmand in China is said to take an emetic, that he may again enjoy the pleasures of the table; but the refinement of to-day rejects this coarse method of getting rid of the burden, and relies on the dinner-pill, or the laxative mineral waters, to carry off food which should never have entered the stomach. The result of this over-indulgence is, that the digestive organs can do their duty but in part, and partly-digested food is hurried along and the products of imperfect assimilation are absorbed into the blood. The organs of excretion cannot eliminate the waste matter presented to them, and as a result we have sick headache, biliousness, and skin diseases, mainly eczema. Medicine is resorted to, which whips the organ into action; the surplus is removed; some relief follows; the organs rest from the medicinal stimulation; the over-feeding is continued; the system is again burdened with new matter, and again the same process is resorted to. The result must be apparent to all.

It will be understood, of course, that I do not claim this to be the fact in every case of eczema, for many will be found where comparatively little—indeed, far too little—food is taken and assimilated. But it is often these very patients who will give the history of having previously over-indulged the appetite, and who have thus laid the foundation of an indigestion which then prevents further indulgence. There are also instances, not uncommon, when this has not happened, but where other excesses have been at work. Eczema is a disease owning many causes, all of which may lead to the same road of debility. We will begin first with the diet in infantile eczema, where we often see very striking errors committed.

In infants at the breast, too frequent feeding is, I believe, a frequent source of eczema. Especially is it common for the mother to give the child the breast every time it cries or is restless with itching, which generally aggravates the already existing digestive disorder. The time of feeding should be regulated, and the breast given not oftener than every two hours.

But, again, the times of feeding may be correct, and the error may be in the quality of the milk, from the faulty diet or condition of the mother. In my inquiries I have generally found that mothers with eczematous children at the breast are in the habit of taking daily a larger or smaller amount of ale, beer, porter, and sometimes wine; or else large amounts of tea. I do not allow these to be taken by mothers nursing eczematous children under my care, but substitute milk or oat-meal, or thin gruel, for this purpose. Very much more can be accomplished in these cases by carefully investigating the state of the health and condition of life of the mother, and treating her properly, than by medication given directly to the infant at the breast. I am convinced that dyspepsia and constipation in the mother are very fertile causes of eczema in the child, and should always be looked for and remedied. Not at all infrequently rich chocolate, taken to make milk, will disagree with the mother, and, by means of her indigestion, influence badly the eczema in the child; these errors in assimilation will often be shown by the presence of oxalates or urates in the mother's urine. Now, if these elements exist, if the mother's secretions, as from the bowels, kidneys, skin and liver, are not healthy, certainly the secretion of milk is not healthy, and thus can provoke a disorder in the child. The subject of the disagreement of the mother's milk with the infant is one which is so fully recognized that it might seem unnecessary to dwell upon it here; but however much it is appreciated and acted upon in relation to other diseases, it appears to be seldom thought of in connection with eczema, although in reality it is of the utmost vital importance. Prolonged lactation is sometimes a cause of, or at least an impediment to the cure of eczema in the nursing child; not infrequently, therefore, it will be necessary to wean the child and place it upon proper nourishment before the eruption can be cured. When the milk is poor in the mother, it is best to supplement it with cod-liver oil, both to the mother and child.

The subject of the proper nourishment of infants by artificial foods is one which can hardly be completely entered upon here. If it is conducted upon the plans accepted by

the more recent authorities, it is all that can be needed as far as relates to eczema. It may be mentioned, however, that it is well to guard against an excess of sugar, and also of starchy matter. Milk, as near pure as possible, affords the best diet upon which the young infant can recover from eczema. This may often require the addition of an alkali to obtain its perfect assimilation. When the patient exhibits a strumous tendency, lime-water suffices best. In those exhibiting an acid tendency or with gouty antecedents, liquor potassæ is more serviceable. Personally I have not used soda to any extent for this purpose, being fully satisfied with the results obtained by the addition of a small quantity of liquor potassæ to each bottle of milk.

When the child with eczema has passed beyond the period of nourishment at the breast, great care is required that its diet is correct. I need hardly allude to the impropriety of giving young children "a little of all that is going," as I see daily done among the poor, and sometimes even among the educated classes. It must be remembered that the servants, to whom the care of children is often too largely committed, are often taken from the lower ranks of life, and are totally ignorant of all principles of health and life. Unless the matter of diet is inquired into, it will frequently be found that even children at the breast are fed from the table with the food of adults, and especially do they often get a little tea or coffee, of which children are universally fond. These should of course be interdicted to all children, and they should be encouraged to use milk freely. Even among patients in the better ranks of society, I have found very young children also indulging in the most improper mode of living, not only in the way of large quantities of candy, chocolate, cake, etc., but even pickles, nuts, and most indigestible articles, with the utmost freedom. I am positive that the severest restrictions in these respects have been followed in my hands by results which had not been and could not be attained under previous treatment, which in itself was quite proper, until these causes of disease were removed.

It is almost constant observation of mine that patients with eczema, of all ages, dislike or avoid fat as an article of diet;

and from the results constantly obtained by means of cod-liver oil, I have long been convinced, and acted upon the idea, that absence of fat was an important etiological factor in eczema. I therefore insist that patients with eczema shall increase the use of fat as an article of food to the fullest extent possible with healthy digestion. But it must be clearly understood that this does not refer to fat in combination with other substances, as in articles fried, gravies, pastry, etc., but has reference to pure oily matter, as found in the fat of roast beef, butter, cream, etc. Some little care, however, must be exercised in executing this order to use fat largely by those not accustomed to it, because there is the danger of the production of a set or group of symptoms commonly known as bilious, as is very frequently seen in those who begin with cod-liver oil in too large doses. Alkalies are very commonly required to assist in its digestion; and it is also exceedingly important that the patient take as much open out-door exercise as possible, to produce complete combustion of the fat.

While fat is of value as an element of diet in eczema, other hydro-carbons, starch and sugar, are to be diminished in the dietary; and this is especially to be attended to in cases exhibiting elements of a gouty state. Indeed, these patients will generally appreciate that over-indulgence in sweets and starches is very commonly followed by aggravation of the eruption.

It is often of service in cases of more acute eczema to limit the amount of meat taken. My observations have convinced me that in the main too much meat is consumed by a large share of those who can obtain it in this country. When the urine is loaded with urates, an excess of nitrogenized food but augments this condition; and when the skin is in an inflamed and heated condition, with acutely developing eczema, a limitation of the meat taken to once, or at the most twice a day, is of great service. Indeed, not very infrequently it will be found of value to cut off the meat entirely, and to place even the adult patient upon a milk diet.

It is an error to believe that the child suffering from eczema is benefitted by the administration of a large amount

of nitrogenous nourishment, or stimulants. The processes of assimilation are commonly at fault, and an excess of highly nitrogenized food but clogs the over-burdened kidneys, whose function it is to eliminate a large share of those elements. A moderate amount of beef-juice (one or two teaspoonfuls), once daily, to an eczematous child of one or two years of age, is all that can be properly cared for; and in a majority of these cases cod-liver oil is far more serviceable.

It is supposed by many that fish is injurious and should be restricted in eczema. This is founded upon the fact alluded to, that in certain individuals some varieties of fish, especially shell-fish, call forth an eruption of erythema or urticaria. I have not found fish or shell-fish to be injurious in eczema, unless, indeed, there is a peculiar idiosyncrasy against them; although, of course, if the articles are stale, irritative effects may follow in eczema patients as well as in any others. I constantly order fish as an article of diet to take the place of meat, especially in persons exhibiting nervous symptoms.

Another element of diet which often is required to be supplied to eczema patients is a proper proportion of the truly nutritive portion of wheat, which is so commonly taken out and thrown away. In the ordinary process of preparing flour a considerable portion of the outer coating of the wheat is removed, and the patient thereby loses much of the phosphates, gluten, etc., and the finer grades of flour consist of little more than pure wheat starch, and the ash resulting from burning them is almost pure carbon. To obtain the best results in eczema, not only must we diminish the quantity of the starch, but must increase the proportion of the elements which go to form the human frame. To accomplish this we need to employ the coarser grades of flour, or, what is yet better, a flour made by the new process, whereby only the silex coat is removed from the wheat kernel, which is then ground into flour. This forms a dark bread, highly nutritious, easily digestible, and acceptable to most patients. It need not be insisted upon as the sole bread they shall employ, but should be used to as great an extent as is compatible with reasonable comfort and pleasure.

Fermented liquors, such as ale, beer and wine, are undoubtedly harmful in eczema, and should be restricted, if not entirely avoided, in the vast majority of cases. I do not believe that it is the alcohol alone in the substances which does the harm; and, if necessity requires, it is far better to take a very small proportion of alcohol in the form of whiskey or brandy, properly diluted, with the meals, than the articles referred to. This, of course, applies specially to cases exhibiting the gouty habit, and particularly to those who have already experienced over-indulgence in this particular. A well marked case of gouty eczema cannot possibly be cured thoroughly and permanently where the usual amount of these stimulants is resorted to. It must here be remembered that judgment must be exercised in the matter of withdrawing stimulants from those who have been greatly accustomed to them, otherwise more harm than good may result, though it is safe to say that in the greater majority of instances they can be very largely, if not entirely, abandoned without deleterious results, their place being often fully supplied by proper tonics. The following list exhibits, perhaps, the relative harmfulness of this class of articles as it has appeared to me clinically: Ale, champagne, lager beer, cider, port wine, madeira wine, sherry, claret, white wines—they being named in the order of their harmfulness, beginning with the first. There does not appear to be so much difference between the distilled liquors, and it seems that it is rather the quantity than the quality which does the harm. If I ever allow these to be used in eczema, it is always strictly in accordance with the prescribed rule that they be taken by accurate measurement, to the extent of but a few teaspoonfuls once or twice daily, well diluted, with the meals.

Tea and coffee are commonly supposed to be injurious in eczema, and, to a certain extent, rightly so. Tea I find to be far more harmful than coffee, perhaps because it is more common for it to be taken in excess. I cannot speak with regard to the effect of large amounts of coffee. I am very confident that tea, if used in excess, is certainly harmful in eczema, and I continually find patients with this disease who are in the habit of consuming large amounts; especially

is this true among such persons as dressmakers, cooks, and others. In moderation neither tea nor coffee appears to have a decided influence upon eczema; and it is my custom to allow a single cup of coffee and one of tea, each once a day, but neither twice. I especially object to after-dinner coffee for eczema patients.

I have had good reason to believe that soup, as ordinarily taken, is not good as an article of diet to eczema patients. It seems to act injuriously by a dilution of the gastric juice, and possibly the greasy constituents of soup as ordinarily used acts as a cause of indigestion; certain it is that many patients state that they are more troubled with heat, burning and itching in eczematous parts after considerable indulgence in soups.

The proper diet, therefore, in obstinate cases of eczema, as before stated, should be both wholesome and nutritious in the strictest sense of the word. The necessaries of life are to be used as freely as are required, but care must be exercised in regard to many of the so-called luxuries, because commonly we find in them the source of the greatest harm to eczema. Chiefly to be interdicted are such articles as those into whose substance fat is burned, as in fried things, of which fried oysters, fried egg-plant, crullers, doughnuts, etc., stand as types of the worst. With these must be forbidden the use of pastry, rich cake, cheese, pickles, nuts, raisins, and very richly prepared preserves, together with rich candy, and even such luxuries as soda-water with the syrups. Hot breads are undoubtedly deleterious, and, as a rule, none should be taken by eczema patients which is less than twenty-four hours old. A very common direction of mine is that eczema patients shall avoid both the beginning and the end of the meal such as is common to many, and I even prescribe that they shall make their meals off a single plate or course, avoiding soup, entrées and dessert entirely.

There are some few articles in the vegetable line which must also be attended to, as having probably a harmful influence in eczema. These are sweet potatoes, cabbage; also bananas, and many apples. It is also better, as a rule, to avoid all that is commonly known as salt food, such as corned

beef, ham, salted fish, etc., although this is not absolutely necessary, and a little salt fish or bacon may even be taken as a relish with impunity.

Oat meal is popularly regarded as "heating," and my impression is very strong that eczema patients do better without much or any of it, although I cannot well define exactly in what manner it acts disadvantageously. I encourage largely the use of crushed wheat for breakfast, and, for a change, one may take without harm, hominy, rice, gluten or corn meal; it is better, however, to use the cracked wheat as largely as possible. It is essential that it should be thoroughly cooked, and my common instruction is to have it boiled overnight and then again the second time in the morning.

Another point alluded to, in our definition of proper diet, had reference to the mode of preparation of food; and this is a matter of some importance. That food should be properly cooked is evident to all, and that this is not always done is equally evident. It is error to believe that meat a great deal underdone is of peculiar value, and, from experience with the digestion of younger people and dyspeptics, I am convinced that meat should be thoroughly cooked in order to be readily and thoroughly digested and well assimilated. But the outer, burned portions are not desirable, and as a rule should be avoided by eczema patients; as also the skin of poultry and the stuffing, rich gravies, etc. Mention has already been made of the preparation of breadstuffs; care should be taken that these are not too fresh, that they are thoroughly cooked, not soggy, nor sour. Attention has been called to the harmfulness of fried articles, and this point should be investigated, inasmuch as very many are in the habit of having food fried in place of being cooked by other means.

Many of the points here alluded to may seem exceedingly homely and, perhaps, out of place in a scientific treatise; but it will be remembered that the subject under consideration is the management of eczema; and unless all points which conduce to a perfect restoration of health are attended to, our aim cannot be quickly and thoroughly accomplished.

The next point in our definition of diet refers to the time

and method of consumption of food and drink; and this is a matter of vital importance. Irregular meals, or those hurriedly taken, cannot conduce to health, and stand as obstacles to a cure of eczema. Regularity should be observed in the time of taking food, and the quantity at each time should be as nearly that commonly taken as possible. A breakfast sufficient to give nourishment and vitality for the day; a light lunch sufficient for support during work; and a comparatively hearty evening meal, to make up for the wear and tear of the day, are requisite. With children, of course, the hearty meal may be taken, and probably is better taken, in the middle of the day, when the evening meal should be relatively light, consisting of bread, milk, etc., avoiding such articles as cake and preserves.

A point of no little importance, but one which is too much ignored, both by the profession and the laity, is the time occupied in the consumption of food. Rapid eating is undoubtedly a source of very great harm, and yet is a habit which is very common in America. With rapid eating, of course comes imperfect mastication and insufficient insalivation of the food. The process of digestion undoubtedly commences in the mouth; and an imperfect performance of the work offered to this portion of the digestive tract, must throw undue work on the other portions and result in imperfect digestion. Many inadvertently take large quantities of water or other liquid with their meals, to hasten the process of swallowing; very cold water is especially bad, but any fluid beyond a very moderate amount, certainly dilutes the gastric juice and impairs digestion. Nor is it well to take the tumblerful, as many do, just at the close of the meal; the result is the same; water or fluid taken soon afterwards must and does act prejudicially. A common direction of mine is, that the patient diminish the quantity of fluid customarily taken at the meals by one half; one cup of tea where two were taken; half a goblet of water where one was drunk. This may be again further diminished if the patient is still taking large amounts.

As a further thought in the same direction, comes that with reference to the teeth. A number of times it has

seemed to me that imperfect or absent grinding teeth have been an element of importance in the causation or obstinacy of an eczema.

Still another practical suggestion is, in reference to the mental and physical state before and after eating. Great fatigue, mental or physical, before meals, may result in imperfect digestion; the same, taken after eating, has a similar result. In the case, therefore, of business men, those who are obliged to work mentally or physically to a great degree, it is far better not to take the hearty meal at noon, when this might act as a disturbing agent, but to eat more heartily when, at the close of the day's work, rest can be taken after eating. Mental strain and shock can undoubtedly arrest the digestion; and I have witnessed a perfectly healthy meal retained in a perfectly healthy stomach six hours undigested, and then brought up when the patient was put under the influence of ether. The cause of the arrest of digestion in this case, was the nervous shock occasioned by the proposal of the operation which was made just at the close of the breakfast. Close mental application too often repeated, immediately after a hearty meal, can cause indigestion. This, with the other practical matters which have been alluded to, must be taken into consideration, when the attempt is made to cure an eczema which has long resisted treatment.

Hygiene. If dietary elements are of importance with regard to the management of eczema, because they affect the state of the body, and, consequently, of its diseased portions, hygiene, understood in its broadest sense, is also worthy of consideration in the present connection. It will be difficult, perhaps, to fully define all that can be understood under the term hygiene; but, in the present connection, it is used as referring to every element which can conduce to the general health and vigor of the individual.

First in importance must undoubtedly be placed exercise. Explicit instructions should be given to every one in regard to this, for the judgment of few patients will lead them to employ this agent properly or sufficiently. Simply to advise one to take plenty of exercise in the open air, will not suffice; for the judgment of the patient may differ from that of the

physician as to what is implied by this direction. This subject must be seen to, and full directions given if any results are to be obtained. No spasmodic or irregular exercise will be sufficient; but steady, daily action of the whole frame can, and certainly does, conduce to the restoration of the health of eczema patients, and to the removal of their disease. Horseback exercise undoubtedly stands very high, but so few are able to take this, and it is so often limited by the season of the year, weather, etc., that it is not wise to rely upon it. Walking, however, is a mode of gaining exercise which the humblest and poorest patient can resort to; and if this is properly employed, it will result in sufficient good. But, here again it is necessary that the physician direct the amount of exercise and the hours when it shall be taken, which must of course vary in many persons according to their strength. This walking should not be an easy saunter, nor should the time occupied in shopping and calling be included in that taken for exercise. A brisk walk, graduated according to the health and strength of the patient, and slowly increased until a number of miles daily are reached, is what the disease requires. The preferable times for taking this walk is, of course, during the hours of day, especially when the sun is shining brightly, and in its rays. When this cannot be done, the time may be suited to the necessities of the case. For those who can take it, exercise between the hours of 11 and 3 is undoubtedly of the most value. All other modes of giving the body healthy reaction may of course be used, as taste and opportunity offers—rowing, gymnastics, etc.; but care should be taken that the exercise at one time is not so much as will exhaust the patient and compel a cessation of exercise a day or more, as is frequently the case when long walks, severe horseback rides, boating, and other very active exercises are taken.

Bathing ranks next in importance as a hygienic measure, and the eczema patient should see to it that the entire skin is in a healthy condition. I am convinced that too little attention has been paid to the skin as an excretory organ, and that if it is made to perform its part well, great aid will be given in the treatment of eczema. A large number of pa-

tients with eczema complain of feeling the cold, or of a chilly state of the skin, with each change in the weather, and this is found to pass away under a proper treatment of the skin as an organ. It will be understood, of course, that what is here said must be taken in connection with what is well known in regard to the injurious action of water upon eczematous surfaces. Harm could of course be done to a diseased part by the same measures which would give increased health to portions not afflicted with the disease. Caution must, therefore, be exercised against injuring diseased portions, while we are stimulating healthy parts. Alkaline baths are, as a general rule, of more or less value; and the person affected, even with a localized eczema—as upon the head or hands—will receive benefit from the frequent use of such baths. These may be taken even as often as every night on retiring; and, as a further aid to the skin, it is well, after them, to anoint the whole body with glycerite of starch, either alone or combined with a little carbolic acid, five or ten grains to the ounce, or with vaseline used in the same manner. In general, such baths need not be taken more than once or twice a week. The daily cold or tepid sponge bath on arising, with good, earnest friction thereafter, is also oftentimes very valuable, if there is a perfect reaction afterwards. If, however, the hands and feet are cold, and the circulation is poor, after its use—a state which is common enough in eczema patients—this measure does not do good. The effect of bathing the skin in any manner is not confined wholly to the skin, but results in an increased interchange of tissue elements throughout the entire body, as has been demonstrated by physiological experiments. It is for this reason that they are advised in eczema, as well as for their local effect upon the diseased portion of the skin, or upon the entire skin as an organ.

Proper rest and hours of sleep should never be neglected by the physician, for they not infrequently form an important element in the patient's health, or ill health. I have constant occasion to correct this matter, both in the case of children and adults, and feel confident that gain has resulted therefrom to eczema patients. I have also had occasion continu-

ally to direct patients in regard to taking proper rest from work. In the cure of obstinate cases, we must often prescribe rest from physical and mental employment, as nerve causes can play an important part in causing and prolonging eczema. The direction of the summer vacation is, therefore, a point which I continually take under my care.

Ventilation and sunlight are also items which are often neglected by many, and should, therefore, not escape the careful physician's attention who seeks to cure an obstinate case of eczema. Sunlight is quite as necessary to the health and life of the human being as it is to the plant or flower. All know that these will not flourish well on the north side of the house, or if deprived of the actual rays of the sun, however light their surroundings may be. Foul air may be a factor in the acquisition of eczema. I have seen a number of cases in which I believed defective ventilation had a not inconsiderable share as an etiological factor. This was, perhaps, not so much as a direct cause, as it was that, by lowering the vitality, it had invited the disease. Dampness of an apartment may also have a bearing on the case; also too great dryness, as by furnace heat, without evaporating water, can dry the skin too much and thus open the way for eczema.

Finally, no item which can conduce to the physical welfare of the patient is beneath the notice of the medical man who would successfully treat eczema. Diet and hygiene represent a large share of the elements of human existence, and are often, or rather always, more potent for health or ill health than what are commonly known as medicines; and what is true of the general economy, is still vitally true in regard to one of the most important emunctories of the body—namely, the skin.

Celerina, according to the *Medical Brief*, is steadily growing in popularity with the profession as an efficient agent for the restoration of broken-down constitutions and shatered nervous systems.

ART. II.—**Incipient Phthisis Pulmonalis and its Treatment.**

By JOHN HERBERT CLAIBORNE, A. M., M. D., Ex-President Medical Society of Virginia; Author "*Clinical Reports from Private Practice*," etc., Petersburg, Va.

The term *Phthisis*, from a Greek derivative signifying to burn, or waste, or consume, is appropriately attached to that destructive malady which is said to number amongst its unhappy victims two-sevenths of the human race. This fact would sufficiently attest the melancholy interest that inspires a study of the disease, if further and sadder consideration did not inspire an especial attention. Unfortunately, it seeks and marks as its own the young, the beautiful, and the gifted of every flock. It does not accord with the purpose of this paper to pursue its past history—a history of pain, of sadness, and of the alternations of hope and despair. We shall enter upon its practical discussion, from the standpoint at which we have arrived to-day.

Modern pathologists speak of phthisis as presenting three different varieties of the same disease: 1. *Tubercular Phthisis;* 2. *Caseous Phthisis;* 3. *Fibroid Phthisis.*

Until comparatively of recent date, *all cases of phthisis* were considered *tuberculous* in their origin. Indeed, the presence of tubercle in the lungs constituted the entity of the disease. Now it is known that the products thrown out by inflammatory action within those organs, as during an attack of catarrhal pneumonia, for instance, often undergo degenerative changes, ending in caseous deposits, which produce further inflammation, resulting in suppuration, in cavities, lined with pyogenic membrane, in extrusion, and in final destruction or consumption of the lungs.* And this pathological condition is recognized as *caseous phthisis.*

Again; it is now observed that in bronchitis, especially in protracted cases of chronic bronchitis, inflammatory changes occur, ending in thickening of the mucous coats of these tubes, in enlargement of their diameter, and finally with the deposit within them or in the acini in which they terminate, or in the connective tissue through which they run, of amor-

* Niemeyer conceded tubercle itself a product of inflammation.

phous matter, caseous or tubercular, that results, as in other cases, in further inflammation, suppuration and extrusion—in other words, in consumption of the lungs; and this is designated as fibroid or *bronchial phthisis*. It is that variety of consumption seen mostly in old people, which sometimes lasts for years before proving fatal.

Whilst these several varieties of phthisis are sufficiently well marked to render them quite distinctive in their special pathology, yet they are so nearly akin in their nature, in their destructive action, in their primal causes, in their prognosis and in the final results, that it is not a matter of practical concern to consider or to treat them differently. All phthisis, of whatever variety, is consolidation, followed by destruction of lung tissue or lung texture, and consequent wasting away of the patient.

Its etiology demands that there should be some *inherent tendency* towards the disease, some specific deathesis, either *hereditary* or *acquired*; and this, whether the deposit in the lung be tubercular originally, or whether the product of inflammation degenerate into tubercle, as Niemeyer and many others think, or whether the same product degenerate into caseous matter, as the later pathologists contend.

In reference to its *hereditary character*, the weight of authority now, as from the time of the earliest writers, goes to affirm the fact that the disease is transmitted from sire to son, not invariably, of course, but often. This point, however, is not without its disputants, and there has been some rare hairsplitting of this very question recently, a modern writer contending that the *predisposition* is *hereditary*, but that the *disease* is not hereditary; whilst another boldly repudiates the legitimacy of its birth, declares the malady a bastard, born of wedlock, of cryptogramic stock, and announces that he can *create* the disease, and, more fortunately for men, that he can *cure* it. (Salisbury.)

But if it be not hereditary (and certainly the history of every case cannot be traced to its lineage), it seems at least sometimes of spontaneous birth. What is this acquired tendency to phthisis, this rule which provides that in one person an amorphous exudation should degenerate into tubercle

or into caseous mass, and that in another the same product, after certain pathological processes, should be absorbed as harmless, or take on even the healthful action of correct nutrition? Is there a specific *contagium* of phthisis, as in small-pox, syphilis, etc., capable of direct transmission by inoculation or by inhalation, whose microscopic matter, though hidden, may be handled and transported? Some very curious and very ingenious experiments are practised to-day by a skilled and enthusiastic scientist, and he hastens to announce, upon evidence seemingly as safe as *experimentum crucis*, that he has taken the germ in his hand and carried it from the higher organism of man to the lower animals, and that he has literally made the disease appear and grow in the rabbit and in the dog, with like fatal and wasting effect which it exhibited in the human subject. But to-morrow a fellow laborer of equal skill in the same field announces an experiment with other amorphous, aplastic or putrid growths ending in the same results. The question is evidently an open one with the pathologists and microscopists, by no means settled. But the inquiry is persistent and paramount in interest with the practical men who have arrayed themselves on either side, and who contend earnestly for the truth as they see the truth. From Cullen down to Da Costa, the affirmative of the question shows an array of talent and skill, illuminating the page of medicine with a light as steady as it is brilliant. Their views are neither obscure nor uncertain. Yet the records and the statistics of those who have adopted the numerical method, notably, the reports of Dr. Cotton, of Brompton Hospital for Consumptives (1872), and of Dr. Cormack, of Dublin (1865), make a powerful negative. Dr. Cotton says the best way "not to catch consumption is to live and work in the wards of a consumptive hospital." In the mean time the majority of general practitioners are in the habit very much of deciding the question for themselves, and incline, as a rule, to the opinion that under favorable circumstances the disease is undoubtedly communicable. I have seen a husband nurse a wife through a protracted attack of phthisis, become infected himself by the disease, marry again, die of the disease, and leave it as a legacy to a second wife.

I have recently seen a young woman with phthisis, who nursed her husband through his disease, die of the same disease within a year, yet whose perfect health had before been almost marvellous, and the longevity of whose ancestors had been remarkable. These are but two of many instances which have come under my immediate observation, and which can doubtless be duplicated by other physicians before me. They are something more than coincidences. These cases go very far towards establishing the entity of the disease as the result of a *specific infection*, and towards the disproval of the proposition that it is but the product of an *impaired nutrition* or of a *lowered vitality*. Impaired nutrition and lowered vitality seem occasionally to develop the diathesis, which suffers the successful inoculation of phthisis, but it is doubtful if impaired nutrition or lowered vitality ever eventuate in the disease itself. The germ must be present—a legacy most probably from some unfortunate progenitor, a gift of that law of inheritance which sometimes delays, but whose enactments are eventually and surely fulfilled, or more rarely a personal infection, acquired by too intimate and too protracted an association with a subject of developed phthisis.

In contemplating the matter of inherited phthisis, it has seemed to me that there has been a singular kinship in the diathesis disposing to consumption to that diathesis from which scrofula and cancer spring. And if in looking back over the ancestry of a patient threatened with phthisis, I find no tubercular taint, yet a scrofulous or cancerous pedigrèe, I feel as sure of impending mischief as if I had seen unequivocal evidence of the former. Phthisis, scrofula, cancer are all, it is true, diseases of a lowered vitality, but they are all something more. They are all congeners in a very close degree—all three representatives of a perverted nutrition, pouring out, in the place of healthful, organizable lymph, amorphous and aplastic matter, an irritant to sound tissue, demanding and compelling by its noisome presence, inflammation, suppuration, and extrusion.

But whatever doubt or whatever difference there may be in the minds of medical men in reference to the *origin* or the

primary cause of phthisis, there is none in reference to those *conditions* or *circumstances* most liable to call it into action. And of these we may enumerate climate—not a cold climate especially. It is a disease almost unknown amongst the people in the high latitudes of the Arctic region; but it belongs to a damp climate, a climate subjected to frequent, rapid, and exaggerated changes of temperature, as is common in the greater part of the temperate zone. Even in the tropics, and notably in the equatorial regions and amongst the natives of Africa, we have recently been told by a returned missionary that it is quite common, attributable to the cold, damp nights and the nude and unprotected condition of the negroes, who wear little or no clothing. Damp and undrained localities in any climate, damp and dark residences, afford admirable conditions for its development. Overcrowded and insufficiently ventilated houses have a like pernicious effect. Insufficiency of food, improper or unwholesome food, have a similar effect. Emotional causes likewise are by no means an unimportant factor in the development of the disease. Grief, disappointment, pecuniary loss, anything which has a tendency to depress or to lower vital action, has, of course, decided effect in bringing out the disease. The confinement and privation and hope deferred of protracted imprisonment are especially pernicious. Certain professions, employments and modes of life have a strong tendency to call into action this unfortunate disposition, notably, any profession or occupation which requires close confinement in-doors. This effect of course is exaggerated if in addition to confinement there be exposure to dust, the dust of certain of the mechanical trades, or even to the dust swept from carpets or bare rooms. I have recently seen the first symptom developed in two cases, viz.: a hæmorrhage, by one patient persisting in opening and refilling a feather bed, and another's pertinacity in sweeping out a large, cold hall which was very dirty.

The *diagnosis* of phthisis, especially in its well established, and more especially in a somewhat advanced state, is made very sure by the study of its physical signs. Since Louis, Laennec, Gerhard and others have so clearly taught the pro-

cesses of physical exploration by the practice of auscultation and percussion, no doubt can linger in any mind in reference to the nature of a lung disease. Absence of, or diminished respiratory murmur at the top of one or both lungs, prolonged or blowing expiration, slight dullness on percussion, running into flatness as the disease advances, then cavernous respiration, metallic tinkling, etc., tell the tale so truly and so surely, that the physician's heart often falls within him, when placing his ear on the chest of some bright young boy or girl, he hears a knell as deathly as the tolling of the curfew. Before and beyond this state, however, in which the condition of the patient's lung may be read and known with all the accuracy that undeviating physical law can develop, there is a border land of uncertainty upon which the disease is just entering, where we must follow its footsteps and study its habits, and learn its incipient and insidious waywardness, if we would arrest its fatal advance. Not the signs, but the symptoms of phthisis, the subjected symptoms, should be our first study, if we desire to oppose lung trouble—at that point where all trouble must be met, if we would meet it successfully, viz., in its beginning. Oftentimes, in the commencement of an attack of phthisis, the physical signs are so obscure as to deceive the most skillful auscultator. Occasionally a hæmorrhage, even very slight, will sound the first note of warning; oftener a cough, dry, not harassing, may be insignificant but persistent; then a slight acceleration of pulse, especially in the afternoon, with just a little increase of normal temperature, say 100° or 101°; some anorexia, shortness of breath, indisposition to exertion, etc. Then, if we further note, in addition, a certain retraction of the skin over the molar bones; a cerulean hue of the sclerotic coat of the eye; atrophy of the lips and nose; pallor of the face and cheeks compared with the difference in color over the molar surfaces; dilation of the nostrils; accelerated respiration, both in expiration and inspiration; sinking of the clavicle or of the lung under the clavicle, on one or both sides; hyperæmia of the pillars of the fauces; sore throat, hoarseness, etc., we may justly fear for the worst. At all events it is time to interpose such treatment as we may find best suited to the cir-

cumstances of each individual case, if we would jugulate the disease in its inception. And now we cannot recur too constantly to the fact, or keep it too vigilantly in mind, that phthisis is a disease of lowered vitality; that the products, the pathological products deposited in the lung, whether tubercular, caseous, or what not, are the products of an impaired or perverted *nutrition*. The work of treatment must begin right here, in improving, strengthening and developing the functions and powers of *nutrition*. The stomach now should receive more care and more attention than the lungs. Good blood can only be made by good digestion, and from good, pure, healthy blood there will be eliminated in the lung no unwholesome, degenerate matter, bringing about irritation, inflammation, suppuration, and in the destructive extrusion of which wasting and consumption consists and occurs. And now the patient needs a *doctor* beyond and above all the needs which he has ever had. I do not say that he needs *physic*. He may plunge or be plunged into cod-liver oil, maltine, the hypo-phosphites, whiskey, lager, tar, into each or all at once or successively, because the patient's condition is one of impaired or lowered vitality, and these remedies are all known or vaunted as *builders up* or *restorers*. At the same time his condition, the condition of his stomach, of the prima viæ, may be such that not one of these articles would be appropriated if taken, or would possibly create additional debility and mal-assimilation; therefore, we say the patient needs the doctor now—not drugs. A doctor, who with all knowledge of the nature and essence of the malady which he is about to meet, knows more than that; a doctor who has experience, strong common sense, courage, self-reliance, who rides no hobby and follows no routine. He may find it necessary to use drugs; if so, he alone should order them. He may find that in dietetics, exercise, change of climate, etc., all of the patient's needs and requirements can be met. If so, he should direct the regimen and control the patient's course of life. The doctor (if such a doctor as we have spoken of) will know whether the patient can be built up with tonics and made fat with cod-liver oil, whilst the stomach rejects the one, and the fouled offices

of digestion revolts at the other. He will know whether a fire can be built in the furnace before the ashes and slag have been removed or the draughts have been opened for the life-bearing currents of atmospheric air. When the doctor says so, therefore, and the stomach corresponds to his assertion, it is well to freshen up the memory again upon the subject of depression of vital power, and to begin the treatment with generous and unstinted supply of the most nutritive and assimilable food. Let the patient now be supplied with all that is good to eat and good to drink which he can bear, and whet his appetite before meals, if necessary, with some simple bitter, and supplement the supply with a spoonful of cod-liver oil after meals, taken in double that quantity of whiskey or wine. At this stage, too—in the beginning of the attack—introduce that all-powerful tonic of fresh air, and that wonderful alterative—change of scene and climate. Let the patient seek—with pleasant surroundings, if possible—a climate embracing two essential qualities above all others—*dryness* and *equability*. The heat of the climate or the coldness of the climate are not matters of consideration in comparison with the attributes mentioned. In such a climate the patient should spend as much of his time as practicable, in the open air, out of doors. Walking, riding on horseback (if there be no especial contra-indication for such exercise), gunning, the chase, are all tonics and alteratives—much beyond drugs in their intrinsic worth, but to be used relatively as drugs are used adapted to the condition of the patient—the stage of the disease and its immediate complications being all factors necessarily entering into the discussion of treatment.

The localities prominently notable, and promising more of the climatic influences which we should seek to bring to bear on cases of incipient phthisis, are, in this country, St. Paul, Denver, Santa Fé, Los Angelos, Asheville, N. C., Aiken, S. C., and Thomasville, Ga. At these places, or in their vicinage, one might expect to find as few sudden changes of temperature, as favorable hydrometric conditions, as many sunshiny days, as he could find anywhere else, and might live as much out of doors, in their environs, without

injudicious exposure to bad weather, as he could probably live anywhere else. I was told by a young physician of one of our Northeastern States, whom I met in the South, and who was travelling with his sister (both of them phthisical), fleeing the Nemesis which had left them alone of a large family, that he found more comfort and greater relief in the piney woods of Georgia and South Carolina—roaming about with his dog and gun—than anywhere else in the world. He had tried all of the most famous health resorts of both hemispheres.

We have spoken of the stomach requiring more treatment in the early stages of phthisis than the lungs. We would not be understood as ignoring lung treatment entirely. It is often and eminently necessary. The products thrown out in the lung, whether tubercular or caseous, are often, according to some pathologists, always the products of inflammatory action. They certainly and always excite inflammation of some grade, more or less extensive, and this inflammatory action may be diminished, controlled, may possibly be brought into resolution, by skillful and appropriate management. Hence we cannot afford to neglect it. Local measures are perhaps the most appropriately and urgently indicated. Local depletion by cups under the clavicles are often of striking avail—not only allaying a troublesome, hacking cough, but preventing or controlling the tendency to evening exacerbations, and thus removing one cause of debility—viz: fever. It is a true saying, "A day's fever weakens more than a week's fast." The early hæmorrhages of phthisis I have frequently thought but an effort of nature to reduce an erythism which threatened serious congestion. I have seen persons whose lives I have believed prolonged, and occasionally saved, by this spontaneous depletion. Indeed, the cases of phthisis in my practice which have lived longest and exhibited the best results of treatment have been those cases inaugurated by hæmoptysis.

This early taught me the lesson of local depletion. When depletion is not indicated or would not be borne, then dry-cupping, blistering, local application of Churchill's solution of iodine—the latter having, in my opinion, a double effect, acting as a derivative, and by absorption as an alterative.

I have less confidence in general treatment; but in red blooded, plethoric persons I have used antimony and morphine in minute doses, with excellent results. With the pale, feeble and flabby, of course such a treatment would be contra-indicated. On the former I have found an occasional dose of mercury of decided advantage; on the latter, of course such a therapy would be hazardous. In cases of this latter character, the only general treatment that I feel any confidence in is a combination of quinine, opium and ipecac. The hæmorrhage of early phthisis requires the most skillful, sagacious and experienced management. Sometimes, as I have said, it is *medicatrix naturæ*; and when nature undertakes to doctor a patient, she requires of the physician, ordinarily, help—not interference. Yet interference may be very necessary even here. But when a physician should interfere and how far he should interfere, cannot be taught by rule. In such a case, the coolest and most unbiased judgment, the shrewdest and most practiced perception, the most accurate and wisest estimation of the patient's dynamic forces, must all be brought into requisition in each individual case; and even then the faithful believer will, after all, cry out for the help and inspiration of the Divine Physician. Always, and in all cases, we should insist upon absolute quiet in the sick room, the removal of every person except nurse and physician, perfect silence for the patient; and if the latter be alarmed and excited—no unusual occurrence—and cannot be soothed and controlled by the coolness and assurance (!) of the doctor, then a full dose of opium or morphia at once for its tranquillizing effect, whatever the subsequent treatment. After that the true physician must assert himself. Sometimes it may be necessary to open a vein in the arm; and though it will require courage to start another red stream when one is already draining out the life, yet the safety of a patient may demand it. I have seen the promptest and happiest results ensue from such treatment. In thirty years I have only known such a course necessary on two occasions. That will, to some extent, indicate the place which such treatment would take on the list of remedies for hæmorrhages. Not often will such a resource be necessary. Of-

tener local depletion by cupping will be indicated. Dry-cupping sometimes exerts the happiest effect. In the use of internal remedies we must, of course, be governed by the condition of the patient. In the plethoric and free of habit, we resort to heart-depressants and sedatives—to aconite, to antimony, to veratrum viride, digitalis, opium, etc. In the pale, ex-sanguine and debilitated, we resort to stimulants and astringents—opium, acetate of lead, gallic acid, ergot. The latter sometimes acts very happily when used hypodermically. Recently we have seen a very bad case of hemoptysis relieved by a combination of sulphate of magnesia, sulphuric acid dilut., sulphate of iron, and sulphate of morphia.* In this case the hæmorrhage had continued, though the physician in charge of it had diligently and intelligently used a variety of remedies, and the patient was almost ex-sanguine—spitting blood by the mouthful, seemingly without intermission, all the time. In one day she was entirely relieved.

The inhalation of the spray of certain solutions—as that of perchloride of iron and of alum—have both been highly recommended in hemoptysis. I have no experience in their use.

The cough of incipient phthisis sometimes claims attention, and often that is the symptom whose persistence and annoyance decides the patient in consulting a doctor. If the local treatment does not relieve that, we have, of course, to resort to medicines—to expectorants and anodynes; or, in other words, to a cough mixture. But I try to impress upon my patients that a cough mixture is always an evil, and always to be avoided, unless the cough be a greater evil, and that the cough is only a greater evil when it disturbs the patient's rest at night. Cough mixtures almost always injure the tone of the stomach, and impair those nutritive functions which we are so anxious to preserve and to

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* ℞ Sulphat. magnes. ..... ℥j
Sulphat. ferri ..... ℥j
Acid sulph., dilut. ..... ℥j
Morph. sulph ..... grs. ij
Aq. font. ..... q. s. ℥iv
M. Dose: Teaspoonful, well diluted, every 2 hours.

strengthen in early phthisis. When it becomes necessary to use them, they should be made as simple and harmless as possible, and given mostly or preferably at night. Occasionally we can avoid their use, by substituting a gumdrop or flaxseed lozenge—something to allay the *faucial* irritation; or we may try the effect of the local application of solution of nitrate of silver—forty grains to the ounce—every two or three days. I have seen such a course of treatment followed by best results.

In the foregoing remarks, it will be noted that we have spoken of the treatment of *incipient* consumption, and of that alone. We do not propose to pursue the subject further. In the commencement only of an attack can we hope to do anything for the restoration of the patient. When the second stage of phthisis has set in; when the lung has begun to break down, and the expectoration becomes profuse and purulent, and night-sweats, emaciation and hectic ensue, then the character of the treatment changes in many respects and the management and hygiene of the patient require renewed attention.

But it does not enter into the design of this paper to pursue the subject further. The treatment up to this point may be curative. After the breaking down of the lung, it is mostly palliative. Yet much can be done to soften the malady, to soothe the patient, to add to his comfort, and to secure him rest. To this he is entitled, and I trust that the true physician may always be ready to secure and guarantee it.

ART. III.—**Diphtheria Epidemic in Lomira Township, Wisconsin.** By HENRY P. WENZEL, M. D., Milwaukee, Late of Lomira, Wis.

During the fall and winter season just passed, a severe epidemic of diphtheria, with malignant tendency, swept over our State. The mortality everywhere was large—in certain districts amounting to 90 per cent., while many families who had from four to eight children lost all of them in a few short weeks. In the following pages we will describe the

epidemic in this township, from September, 1880, to February, 1881. Without desiring to appear egotistical, or claiming unattainable results, the treatments and results of myself and *confrères* will be compared. I have chosen this township only because all the results are *actual facts*, observed by myself or obtained from the attending physician or the families interested.

The Lomira township is six miles square; the surface is rolling; there are no very steep hills nor very deep valleys. In the eastern half, the underlying limestone-bed is from twenty to sixty feet below the surface, and many wells do not reach the stone. The western half has some of the oldest limestone underlying it at a depth of from four inches to four feet. There are some outcroppings, and a few "faults;" while in several places wide displacements and interruptions are observed. The soil is very porous, and percolation to the rock is rapidly carried on. All wells are drilled into the rock at various depths, from thirty to eighty feet or more. The seams and fissures are large and extensive, and water contamination with filth and organic impurities are common, unless the hole in the well is drilled large enough to admit the tube, and unless there be a cement-filling on the outside from the top to a depth of thirty feet. In the northwest quarter, the soil is very shallow and the cracks and crevices in the rock abundant. Here diphtheria raged worst, and here the mortality was very large, as will be seen by the table further on.

The population is largely German. Very few American and some Irish families reside in the township.

The surroundings are generally good. There are, of course, exceptions. The houses are, for the most part, comfortable; but in some instances the cellars are damp and filthy. In several places, the barnyard "droppings" and liquids drain toward the houses, and percolate into the wells.

The Germans use less meat than the Americans or Irish. All are comfortably clad. Some are given to dissipation.

It is a noted fact that *all* diseases are of a severer type and more malignant in the north half of the west half of the

township, and during the late epidemic sixteen patients died in an area of two miles square. The following diagram will illustrate:

TOWNSHIP PLAT.

—W.—

Southwest Quarter.	Northwest Quarter.
Total cases, 2. Male, 1; female, 2. Both died. Mortality, 100 per cent.	Total cases, 38; 21 males, 17 females. Total deaths, 22; 12 males, 10 females. Total recoveries, 16; 9 males, 7 females. Per cent. recoveries—males, 42.9; females, 41.17. Per cent. deaths—males, 57.1; females, 58.8. Gen. av. recoveries, 42.1 per cent. " " deaths, 57.0 per cent.

S. N.

East Half.

Total cases, 9; 6 males, 3 females.

" recoveries, 6; 4 males, 2 females.

" deaths, 3; 2 males, 1 female.

Mortality—male, 33; female, 33 per cent.

Recovery—male, 66; female, 66 per cent.

Average mortality, 33; average recovery, 66 per cent.

—E.—

The first cases could not be traced directly to any infecting source; but later on, more than twenty cases received the diphtheritic poison from an imported case, and sixteen died. The first case in N.'s family was imported from Fon du Lac: five in family sick; four died. By relatives, the disease was carried to R.'s, one and a half miles off; seven affected; three died without medical attendance. One of N.'s neighbors (R.), forty rods off, allowed his children to visit at N.'s house; two sickened and died. A niece of Mrs. N. visited the house about the same time, was taken severely ill and died on the fifth day. J. S. helped to prepare one of N.'s children for burial; was severely affected and recovered.

One of S.'s neighbors came in contact with one of N.'s nurses, and brought the disease to his sons, two miles; after two days he was taken ill, but recovered. During N.'s convalescence he went to a small village, a few miles off, and in a few days five sickened in H.'s family; three died; one was affected in another family and died; one in another family recovered. B.'s family received the poison from the same source; nine affected; four died. Wm. K. and his sister Mary moved into N.'s house before the wall-paper was removed, and the curtains washed and replaced. She was taken severely with diphtheria, and her brother had a severe sore throat. Several cases in the same vicinity could not be directly traced to any infecting focus. N.'s house served as a hot-bed of infection to the neighborhood.

Habits. Those persons whose surroundings were cleanly, and those persons feeding on large quantities of meat, were less severely prostrated, and the disease was more tractable, of shorter duration to complete recovery, and the mortality was smaller than where the opposite obtained.

Duration of Disease. The shortest time from infection to death was two days, and the longest twenty-two days; the shortest time to convalescence six days, and the longest forty-five days. Some cases required two months and more to regain their wonted health.

Location of Membranes. In but a single case was the larynx primarily affected; in all the others, the soft palate, uvula, tonsils and pharynx were first implicated; then the hard palate, cheeks, lips and nose were invaded; also the eye in one case. In one case, the vulva was covered with a large, thick membrane on the fourth day. One young man froze his ear, and a few days later the ear was covered with a thick diphtheritic patch, followed by gangrene, and a portion of his hearing appendage was lost. In several cases which came under my care, the patients had been blistered, and the abrazed surface was covered with a diphtheritic membrane.

Age. The youngest patient was one and a half years, and the oldest forty-six years old, both males. There were no cases under one year. The mortality was terrific between

one and five years, receded between five and ten years, increased between ten and fifteen, markedly dropped between fifteen and twenty, and no deaths occurred above twenty years.

The results are given in the following table:

From	1½	to	5	years,	15	cases;	14	deaths;	93.0	p. c. mortality.
	6	to	10	"	11	"	6	"	54.0	" "
	10	to	15	"	9	"	5	"	55.0	" "
	16	to	20	"	5	"	2	"	40.0	" "
	20	to	30	"	7	"	no deaths.			
	30	to	40	"	1	"	"			
	40	to	46	"	1	"	"			
Total,		-	-		49		27	deaths;	55.0	" "

Sex. All males under five years succumbed, and one female recovered. The mortality is also greater among males between five and ten years; between ten and fifteen years, females show increased death rate; between fifteen and twenty years, males show increased mortality, whilst no females succumbed. After twenty years, there were no deaths; and in any epidemic, the mortuary report must be small after the first score of years has been passed.

TABLE SHOWING THE CASES ACCORDING TO SEX, AGE—MORTALITY RATE.

Age.	Cases.		Total.	Recoveries.		Total.	Deaths.		Total.	Recovery. per cent.		Mortality. per cent.	
	M.	F.		M.	F.		M.	F.		M.	F.	M.	F.
1 to 5	9	6	15		1	1	9	5	14		16.	100.	83.
5 to 10	7	4	11	3	2	5	4	2	6	43.	50.	56.0	50.
10 to 15	4	5	9	3	1	4	1	4	5	75.	20.	25.	80.
16 to 20	3	2	5	1	2	3	2		2	33.	100.	66.	
20 to 30	4	3	7	4	3	7				100.	100.		
30 to 40		1	1		1	1					100.		
40 to 46	1		1	1		1				100.			
Total,	28	21	49	12	10	22	16	11	27	58.0	64.5	41.0	35.5

Diagnosis. In all cases examined by the author, the gland (lymphatic) at the bifurcation of the common carotid artery (Luschkar?) was enlarged and slightly painful, shortly before the characteristic exudation appeared in the mouth and pharynx. We have also noticed that the chain of lymphatics near the posterior border of the sterno-cleido-mastoideus muscle is invariably tender and somewhat enlarged in diphtheria, which never occurs in any other pharyngeal or throat lesion, excepting, perhaps, syphilis. And the medical attendant is justified, in diphtheria epidemics, when these enlargements are perceptible, to suspect diphtheria, although no other symptoms may be present. I have observed these results in over one hundred cases, and mentioned the subject elsewhere several years ago.* The usual symptoms need no mentioning here.

Prognosis. In all cases where the temperature exceeds 106°, and the pulse 160, the result is fatal. Excessive epistaxis is a forerunner of death; and bleeding from the nose always augured badly during the late epidemic. Complications increased the danger in every case; especially acute nephritis and erysipelas capitis have a tendency to end lethally.

Mode of Death. Two cases died of laryngeal diphtheria; three of suffocation from excessive exudation and œdema of the soft palate and tonsils; five died of cardiac paralysis, the patient raising himself or was raised by officious attendants. There is no doubt that three patients, which were seen in consultation with other physicians, could have been saved, or, at least, their lives prolonged, by timely tracheotomy; but the parents indignantly refused the operation. Most of the others died of asthenia.

Complications and Sequelæ. (1,) *Complications:* There was one case, respectively, of acute nephritis with anuria, and erysipelas capitis; ended fatally. There was one case of acute pleurisy followed by acute endocarditis; recovered. Suppression of urine was frequently present, but always yielded to digitalis. A scarlet rash followed by desquama-

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tion, came on in the latter stages of a diphtheritic patient; doubtless was the twin brother, scarlatina. One patient, a young lady of seventeen, suffered severe rheumatic pains flitting from joint to joint, and the articulations of the upper and lower extremities were tender on pressure. One patient had a severe metrorrhagia for several weeks, requiring active interference. (2,) *Sequelæ:* Paralysis of the soft palate and pharynx was observed in a number of cases; pharyngeal paralysis with complete aphonia was noted in one case; and pharyngeal and palatal paralysis with paresis of the lower extremities was observed in one case. Acute parotiditis, without suppuration, occurred once; and painful, enlarged cervical glands were observed several times. Several cases passed through a protracted convalescence; and one, a young man, suffered for months from spinal weakness.

Prophylaxis.—Complete isolation was enforced in every case treated by the author; and the sick room was quarantined against the family, except the nurses. The attendants were prohibited from mingling with others of the family, and outsiders (visitors) were forbidden. In several instances my predecessors permitted promiscuous congregation, and the disease was directly carried to other families. All unnecessary furniture, clothing, tapestry, pictures and carpets were removed from the sick room. The sick room was thoroughly fumigated with sulphur every two or three hours until the patient coughed. Free ventilation was carried out as far as possible. All parts of the house were fumigated twice daily. All cloths used for catching discharges were immediately burnt. The excreta were disinfected and buried. Cleanliness was rigorously enforced.

All the relatives of a patient were put on large doses of muriated tincture of iron, and were, I believe, thereby prepared—at least, the disease became tractable.

After the disease was controlled or extinguished, the sick room was securely closed and fumigated for five days with sulphur; useless materials were burned; bedding and clothing washed in boiling water and soap; the furniture was removed and washed, then painted; the wall-paper was torn from the walls; the floor and wood-work were scrubbed with

hot lye or water and soap, and then painted with hot oil paints; the ceiling and walls were thoroughly whitewashed. Whenever this procedure was carefully adhered to, there was no subsequent trouble. In N.'s house all the details were carefully attended to, but they refused to remove the wall-paper and the window-curtains; in consequence the room served as a *fons mali* where the *materies morbi* of diphtheria was propagated for the neighborhood.

Treatment—General Internal.—Believing that the diphtheritic poison directly affects and destroys the plasticity of the blood and endangers the heart, and noting the malignant tendency, the following treatment was strictly adhered to throughout the epidemic. The results will be noted further on:

Muriated tincture of iron was exhibited in ten-drop doses, diluted in sweetened water, every alternate hour, to a child seven years old; older patients received comparatively larger doses.

Tincture of digitalis was administered in eight-drop doses every alternate hour to an eight-year-old patient. Cumulative explosions were not observed. Marked reduction of temperature and pulse was observed in every case after several hours. The two following cases will illustrate:

I was called by the (two) attending physicians to see a girl (14) and a boy (7) at 10 P. M. They had prescribed quinine, iron, chlorate of potash, benzoate of sodium, etc., and whiskey to saturation, without results. Both patients were in a critical condition: the girl's temperature 106.3° F., pulse 172, feeble; boy's temperature 105° F., pulse 168. We gave the iron and digitalis, as indicated above, alternately every hour, and reduced the whiskey to a minimum amount. The following morning at 9 o'clock the girl's temperature was 102°, pulse 120; boy's temperature 102°, pulse 112. 6 P. M.: Girl's temperature 102, pulse 118; boy's temperature 101¾, pulse 112. 8 A. M. next day: Girl's temperature 101.2, pulse 112; boy's temperature 101, pulse 100. 6 P. M.: Girl's temperature 100.2, pulse 100; boy's temperature 99, pulse 84; both called for food.

We have in *digitalis a heart tonic and quieter, a certain temperature reducer, a valuable diuretic and diaphoretic.* When the pulse and temperature fell to 100, the dose was reduced or the interval lengthened.

Quinia was given but a few times in a few cases during the height of the fever, and only in single doses at night. During convalescence the following mixture was prescribed:

℞. Tr. ferri chloridi.....f. ʒvj
Acid muriat., C. P.....f. ʒj
Strych. cryst.....gr. j to gr. iss
Quinia sulph.....ʒij
Glycerinæ.....f. ʒvj

M. Make solution. Sig.: 30 drops to a teaspoonful thrice daily, in sweetened water. Sometimes digitalis was added to the mixture.

Carbonate of ammonia was used in one case, and, I believe, hastened death. Stimulants were freely used *as stimulants* only; I doubt that a single case of diphtheria (malignant) was ever cured by alcoholic stimulants alone, notwithstanding Dr. Chapman and others to the contrary.

Milk, broths, raw eggs, oysters and beef-tea were frequently given *per orem et anum*, in as large quantities as could be retained. Death is frequently caused by starvation; if the stomach reject food, the rectum "is willing to do its share." Strychnia was administered in paralytic sequelæ in increasing doses, as a stomachic and nerve tonic.

Local Treatment.—All pieces and shreds of membrane were removed, as soon as avoidance of hæmorrhage permitted, with Simrock's forceps. Marked relief followed in every case, and in the oldest (B., 46) imminent death by asphyxia was averted by removal of a membrance four inches long (a partial cast) from the larynx. Any procedure by which partly detached pieces of pellicles are removed improves the patient's condition; but hæmorrhages must be avoided. Twice I removed a perfect cast of the soft palate, uvula and tonsils, with marked relief to the almost suffocated patient. Besides, the horrible fetor is lessened, and the patient does not constantly inhale a pestiferous atmosphere, adding fuel to the poison already raging in the system, thereby avoiding further auto-infection.

Chloral hydrate (ʒij to the ounce of water) was used as a wash, and was frequently applied to the mouth and throat with a mop of cotton or camel's-hair pencil. It markedly reduced the fetor, and hastened the exfoliation of the mem-

branes. The nostrils were syringed out with a diluted chloral solution, or with a solution of potassium permanganate.

Lime-water and steam afforded moderate relief in excessive swelling of the pharynx and tonsils. Flaxseed, onion and potato poultices eased the pain of the glands beneath the jaw.

Potassio-tartrate of iron in saturated solution was applied to vulvar diphtheritic deposits with elegant results.

In the following tables the results of treatment are compared. The first table presents the mode of treatment as usually carried out here by the physicians; the second table shows the result of my treatment as presented in this paper:

TABLE SHOWING RESULTS OF VARIOUS MEDICATIONS.

(1.) Homœopaths treated.....10 cases; 10 deaths=100 p. c.
(2.) Irregulars treated..... 6 cases; 5 deaths= 83.3 p. c.
(3.) Regulars treated..... 6 cases; 6 deaths=100 p. c.

Totals.....22 cases; 21 deaths= 95 av.

(4.) Three cases died without medical attendance.

One of the cases treated by "3" was in all probability scarlet fever; as the attending physician was not sure of either, he *inclined* (?) to call it diphtheria, although there was not another case within five miles.

TABLE SHOWING RESULTS OF MY TREATMENT AS LAID DOWN IN THIS PAPER, GIVING DATA ACCORDING TO AGE AND SEX.

Age.	Cases.		Total.	Recov'ies		Total.	D'ths.		Total.	Per cent. Recoveries.		Per ct. of Deaths.	
	M.	F.		M.	F.		M.	F.		M.	F.	M.	F.
1½ to 5 yrs.	1	2	3	.....	1	1	1	1	2	.....	50	100	50
5 to 10 "	1	3	4	1	2	3	.....	1	1	100	66	.....	33
10 to 15 "	3	1	4	3	1	4	.....	...	...	100	100	.....	.....
15 to 20 "	2	2	4	2	2	4	.....	...	...	100	100	.....	.....
20 to 30 "	4	3	7	4	3	7	.....	...	...	100	100	.....	.....
30 to 40 "	.....	1	1	.....	1	1	.....	...	...	.....	100	.....	.....
40 to 46 "	1	.....	1	1	.....	1	.....	...	...	100	.....	.....	.....
Totals....	12	12	24	11	10	21	1	2	3	91.66	83.33	8.33	16.66

Average per cent. recovery for both sexes, 87.5; average mortality for both sexes, 12.5. It will be observed that the death rate of females is double that of males. All the cases enumerated in the last table were attended by myself from the first; some of those given in the previous table were seen in consultation during the latter stages of the disease. It is the writer's wish that all who peruse these lines may have equally favorable results.

Lomira, Wis., April 15th, 1881.

ART. IV.—**The Easy Administration of Medicines.** By G. F. MEESER, M. D., Philadelphia, Pa.

The "easy administration of medicine" is a subject requiring the careful and thoughtful attention of physicians, as well as of interest for the convenience and pleasure of the patient. The advancement of homœopathy in certain sections of the country has depended, to a great extent, upon the easy and pleasant doses administered by followers of that school. The elegant pharmaceutical preparations compounded by the tasty and skilled chemist and pharmacist have done much to rob the physician's prescription of its terror and render the medicine palatable to the delicate patient.

Very recently, a new and important class of medicines has been introduced by the ingenious and enterprising house of Messrs. William R. Warner & Co., of this city, denominated "Parvules." They bear evidence of exquisite taste and skill, and I have seen nothing of late which seems to supply a necessity so perfectly as they do.

The list of "parvules" prepared and kept in stock by this house comprises thirty-eight varieties. These "parvules" are, for the most part, composed of simple substances in minute globlular form, less in size than granules, and are sold in small vials suitable for pocket cases. They are convenient, portable, and easy of administration. The giving of small doses at short intervals, say every hour instead of every two or three hours or three times a day, produces a more salutary effect.

The question of the ready solubility of these "parvules" claimed my attention, and this I proved to my perfect satisfaction by placing those containing camphor, etc., in the mouth and then observing the effect.

I have seen nothing to please me more than these ready prepared doses. I can give four parvules of aloin, each containing one-tenth grain, at bed time or at any time throughout the day, and get the full purgative effect desired without nausea or pain. I give these one at a dose, three times *daily, or occasionally*, for habitual constipation, with the utmost benefit. When liver troubles also occur, I give parvules of podophyllin, each containing one-fortieth grain, in a similar manner. Two parvules of calomel, each containing one-twentieth grain, given every hour for five doses, produces bilious evacuations, equal to ten grains of calomel as ordinarily administered.

These doses are in no sense homœopathic when given by this rule: One every hour, two every two hours, or three every three hours. To illustrate the fact that these are allopathic, let us take a parvule of morphia, one-fiftieth grain, and give one every hour. This would equal about one-half grain during the twenty-four hours. The various medicated waters which are now so liberally patronized for their aperient effect, etc., I believe are harmful, because they disturb digestion by diluting the gastric juices and reduce the temperature of the stomach. Parvules of aloin, one-tenth grain each, or of podophyllin, one-fortieth grain each, would replace the use of such waters most advantageously.

1512 *south* 13*th street.*

Maltine, as prepared by Messrs. Reed & Carnrick, of New York city, is so well recommended by men of eminence in the profession, as shown by their statements in the *Daily Edition of the Virginia Medical Monthly*, issued during the late session of the American Medical Association, that we have no hesitation in adding our approval. From statements in our possession of eminent practitioners who have used the "maltine," we are safe in saying that maltine "is a good thing."

ART. V.—**The Application of the Galvanic or Constant Current of Electricity to the Brain, as a Therapeutic Means to Modify Inveterate Organic States, and to Restore a Proper Tonic Constraction to Cerebral Blood-Vessels Habitually Dilated, Antagonizing the Various Congestive States of the Brain in Nervous and Mental Diseases.** By EDWARD C. MANN, M. D., New York City, Physician to "Sunnyside," a Private Hospital for Diseases of Nervous System; Member of New York Neurological Society; New York Medical Legal Society, etc.

As a primary proposition which, in the course of this paper, I shall endeavor to show to the profession how to prove to their own satisfaction, I would state that as the result of my experiments, I have proved it to be possible and easy to produce a temporary anæmia of the brain, by means of suitable and proper electrization, and that I can renew this anæmia as many times as I please, daily. The therapeutical weight and importance of this fact is very great, inasmuch as I claim that we can thus antagonize various congestive states of the brain, causing the gravest disorders of the nervous system, and which manifest themselves by physical disorders of varied nature.

It is but a few weeks since I discharged from treatment, completely cured, a young merchant of New York, who was sent to me by a professional friend in this city, who was in the incipient stage of insanity and beyond the stage of electrization of the brain, by the constant current, twice daily. I did nothing beyond prescribing a course of warm baths at bed-time, with a dose of thirty grains of sodium bromide and thirty drops of tincture of cannabis Indica in a glass of water, with friction with flesh gloves over the whole surface of the body. In the inception of treatment I also cleaned out the system by a mercurial cathartic, followed by salines, which is an excellent preparatory method of treatment in the incipient stages of mental disorder. Each séance produced a marked and immediate amelioration, lasting longer each time, and my patient described a sense of weight as lifting from the vertical region of the head, at which point he had persistent headache, which had lasted for months.

I could recount many similar cases if necessary, but the

above is a typical one, in which we find our patient restless, sleepless, and with eyes suffused, and congested conjunctiva and confusion of mind. The grave cases of neurasthenia associated with cerebral hyperæmia exhibit impaired nutrition and assimilation, impaired intellection, melancholia, mental depression, muscular atonicity, irritability, and inability to bear stimulants without distress in the head. These patients exhibit morbid physical symptoms, and get up a religious melancholy (if naturally of religious tendencies), and there is often a change in sentiment. In female patients there is menstrual suppression, but local treatment is not called for here, as electricity and the proper constitutional treatment will cure the patient. Sleeplessness, perspirations and a loss of the elasticity of the skin are all present in these cases.

Prof. Roberts Bartholow, of Philadelphia, speaks thus respecting the influence of the galvanic or constant current in affecting the brain and spinal cord: "Galvanism can alone be used to affect the condition of the brain and spinal cord. Faradism does not pass the barrier of the bony envelope of these parts, but galvanism has been experimentally shown to do so. That galvanism, and not faradism, should be used when it is proposed to reach these parts, seems therefore conclusive. There can be little question that galvanism is highly serviceable in certain vascular states of the intracranial organs. We must bear in mind how galvanism affects the vessels, in order to apply it correctly. We possess no agents which can act on the contractility of the vessels with the promptness and efficiency of galvanism."

By this means of using electricity, applying the constant current daily to the head, for a period of not more than five minutes at each sitting as a rule, but repeating the application twice daily if necessary, I always get amelioration which lasts longer each time; and finally, after a few months' treatment, we get a complete cure. The most severe forms of cerebral congestion, even when accompanied with loss of consciousness, are amenable to my plan of treatment; and we secure a proper tonic contraction to cerebral blood-vessels habitually dilated, thus heading off, perhaps, mental dis-

ease from our patients, many of whom, as I have said, exhibit either marked depression of the intellectual faculties of grave physical disorders of varied nature, even when atheromatous changes have occurred in the vessels, and the walls of the arterioles are yielding and we find in our patients failing memory, weakened power of attention and vertiginous sensations. Prof. Bartholow thinks that we can improve this condition very markedly by the daily application of a weak galvanic current to the head, kept up for weeks or months. Prof. Bartholow has also made a statement, which, in its bearing upon my article on "The Blindness and Deafness Following Cerebro-Spinal Meningitis," recently published in the *New York Medical Gazette*, is to me particularly interesting. He says: "The relaxed state of the vessels following acute meningitis or cerebro-spinal meningitis may be toned up, and *soft, unorganized exudations remaining after the acute inflammation absolved under the stimulation of galvanism*," *etc.* It will be remembered by those who read my article to which I have referred, that I devoted the whole paper to the consideration of the treatment of the blindness and deafness which so often follow cerebro-spinal meningitis, claiming that in the constant current of electricity we possessed the power, by the stimulating and catalytic properties of this current, of absorbing these exudations and of restoring the optic and auditory nerves to their normal state, even after degenerative changes had been set up by the inflammatory process. I am much gratified, therefore, to know that my views presented to the profession some months ago have received the additional weight of so eminent an authority.

In the application of the constant current of electricity to the brain to antagonize the various congestive states, the positive pole of the constant or galvanic current is to be placed at the level of the first cervical vertebra, and the negative pole at the level of the superior ganglia of one of the cervical sympathetic nerves.

The constant current should be frequently interrupted, for experiments show that vascular contraction is produced most markedly at the opening and closing of the current.

The number of cells employed must vary with the consti-

tutional susceptibility of individuals. Other therapeutic applications of the constant current are used to suit different symptoms in different cases.

If any of the profession desire to verify for themselves my experiments on the application of the galvanic current to the brain and its membranes, a kitten may be taken about one month old, in which the cranial wall is still very thin and easy to cut, and cut out a portion on the left side, exposing the dura-mater. It will then be very easy to see with the naked eye, or with a magnifying glass, the arterial and venous branches which ramify upon the surface. The positive pole of the galvanic current is then to be placed behind the right-ascending ramus of the inferior maxilla, and the negative pole upon the anterior cranial region above the eyes. Twelve seconds after the closing of the circuit the peri-arterial branchings of the dura-mater become less and less visible, and a little later the venous branches themselves become pale. At each interruption of the current the anæmia increases for an instant, and then the vessels grow a little larger. This experiment can be repeated as often as necessary, and will always give the same results. The dura-mater may then be cut out, and the pia-mater exposed, when its vascular branches—arterial and venous—will be visible upon the gray ground of the cerebral substance. The same observations may be made on it as on the dura-mater, and with the same results of obtaining at will a contraction of the cerebral vessels.

I am sure no physician will fail to appreciate the important therapeutic value and practical bearing of these facts as applied to diseases of the nervous system, and also as applied to psychological medicine.

About the only medicines I employ with this treatment are sodium bromide and cannabis Indica mixture, which I claim is the most valuable combination to soothe and tranquilize the cerebral nervous system that the specialist in nervous diseases possesses in the incipient stages of insanity, unless I exclude Fothergill's solution of hydrobromic acid, which is often serviceable; while to prevent brain-wasting, I employ, when I consider it indicated, Routh's formula of

the chloro-phosphide of arsenic, decreasing my doses slowly instead of increasing them, as most physicians do, as I know from my experience in brain diseases that the latter course is the most advisable.

The subject of electro-therapeutics of the diseases of the nervous system is full of interest. The constant current is extremely useful in relieving pain, being sedative, restorative and refreshing in its action; and it is of the greatest use in neuralgia of the solar plexus, the cardiac plexus, in gastrodynia and ovarian neuralgia.

By centric galvanization affecting the brain, spinal cord and cervical sympathetic and pneumogastric nerves, we have the most powerful tonic and reconstituent means at our command over the whole central nervous system; while if, in addition to toning up the nervous system, we wish to promote greater activity in the nutrition functions generally, we can, by the proper and judicious use of the faradic current of electricity, exercise all the muscles of the body daily, and improve nutrition very markedly. The galvanic current, however, possesses much more power over the nutrition of organs and tissues generally, owing to its promoting the normal vermicular motions of the blood-vessels, and thus increases the amount of blood passing in a stated period of time. In the amyotrophic paralysis from disease of the anterior cornua of the spinal cord, where the muscles waste very rapidly, if we do not arrest the trophic degeneration, we shall find very probably the reactions of degeneration. So that there is no contractility of the paralyzed muscles, as in infantile paralysis, to the induced or faradic current; while the galvanic current, both in these cases and also in facial paralysis, will cause movements of the muscles, and we have to use this current, therefore, until the contractility of the faradic current is restored, and until the muscles have recovered their normal volume and contractility.

In hemiplegia, if electro-contractility is not lost and the muscles not wasted, electricity need not be used at all. In paraplegiæ, if the lesion is above the dorso-lumbar enlargement of the cord, electro-contractility is preserved; if the lesion is at the nerve centres or the dorso-lumbar enlarge-

ment, we get the reactions of degeneration and loss of electro-contractility, and must then use slow interruptions of the galvanic current. In the field of opthalmology, galvanism is destined to play an important part, if it should chance that it prove to possess the power of removing the opacity of the crystalline lens—thus dissolving the incipient cataract. Great benefit also results from the use of the galvanic current in both cerebral and spinal paralysis, and to a certain extent in general paralysis.

No. 28 *West Thirtieth Street.*

Correspondence.

"An Evil Under the Sun."

Mr. Editor,—We wish to enter a protest against a vicious practice (to which, so far as we know, attention may have been called hitherto, but which is, nevertheless, almost universal), of closing fire-places so soon as open fires are dispensed with in the spring, with ornamental (?) cast-iron screens, thereby obstructing the best channel of ventilation with which an apartment is or can be provided.

Our attention was especially directed to this subject a short time since by an intelligent gentleman of the laity, with whom we were conversing, who condemned the custom in strong terms, which did not seem to us at all extravagant.

The fact that during the spring and summer months windows and doors are kept more or less constantly open, is not sufficient to meet our objection. It is too true that many houses have no open fire-places at all. More the pity!

But if householders will consent to substitute painted wire screens (similar to those so common in office windows, and certainly no less ornamental than the clumsy cast-iron affairs we have mentioned) for such as are in daily use, we are persuaded, a step will be taken of no little importance toward domestic health.

The facility with which these could be removed might lead to the more frequent kindling of fires during the harsher

spells of our changeable summers—a *desideratum* which few will fail to acknowledge.

GEO. BYRD HARRISON, M. D.

No. 1345 *F Street, N. W., Washington, D. C.*

The Ontario Medical Act.

Mr. Editor,—While in Washington some weeks ago, my attention was invited by Dr. F. O. St. Clair, of that city, to an article in the *Virginia Medical Monthly* for March last, purporting to be an answer to my letter on the "Ontario Medical Act," in the December (1880) number of that journal, from the pen of a person writing from Aylmer, in this Province.

I should pay no attention to this writer were it not that he charges me with perverting the Act in question. His personal attack upon me, written, perchance, that he might for the first time see his name to a communication, I shall not notice, other than to suggest that it were well for him if it should be the last; for, if he should attempt to edify the profession with a dissertation appertaining thereto, and display as little knowledge of the nomenclature of medicine as he does of the English language, and of the difference between a law and a by-law, the College of Physicians and Surgeons might feel disposed to look around for ways and means by which they could relegate him to student-life or place him on the retired list of practitioners.

I trust, however, should he again take up his facile pen in defence (?) of the College of Physicians and Surgeons, they will overlook his shortcomings, or take him under their wing and tell him what to say and how to say it. He is, I am told, young, and he may yet learn something.

But, Mr. Editor, I prefer not to enter into a personal discussion with this Dr. Sinclair, of Aylmer, Ontario, or any one else.

When I wrote the articles on the Act adverted to, it was in a friendly spirit, without bias or malice, and with a view of informing the profession and others interested, in the

United States, that such a law obtained in this Province. And before I invited the attention of the profession to it through your journal, I doubt if there were five men in the United States who knew of the existence of such a law, with the exception of those living on the border in the States of New York, Pennsylvania, Michigan, etc., this Alymer gentleman to the contrary notwithstanding.

Now, Mr. Editor, I desire to say, before going any further, of the College of Physicians and Surgeons of Ontario (and this constitutes all the physicians in the Province), that I have met a considerable number of these gentlemen, and, so far as I am able to judge, they compare favorably with their brothers of the profession in any part of the world in all respects. There may be, and probably are, exceptions. I would not point to one if I knew him.

When I wrote on the Act in question, I expected to be criticised; but I did not look for a personal attack from a gentleman who never saw me, and who, if he ever heard of me, could have heard nothing very detrimental. I did suggest that, if my interpretation of the law was incorrect, some gentleman of the "College of Physicians and Surgeons" should rise and explain. The member who has risen explains nothing.

Now to the main subject: In the letter from Alymer, I am charged with saying that the "Ontario Medical Act" requires so and so; and, in the next sentence, with admitting that I had not read the law, etc., etc. A reference to my letter in the December (1880) number of the *Medical Monthly* will refute the charge. In that letter I *did* say, after stating the terms of the law—which I could not have done had I not read the Act carefully and even studied it—that

"The Council has the further power to except any institution in a foreign country which it may deem worthy to elect. But as I have not been able to procure a copy of the by-laws, I am unable to state what, if any, institutions have been exempted in the United States."

And further: "I have given a general outline of the law adverted to, as accurately and explicitly as its length and abstruseness, peculiar to nearly all laws, will admit, and I trust will answer those of the profession in the United States

who may be interested, at least for the time being, or until I shall have procured a copy of the by-laws of the Council."

I would suggest to this gentleman of Aylmer, Ontario, Dr. Sinclair, that before he sends forth another personal attack upon me to the *Monthly*, that he should consult Webster for a definition of *law* and by-law. But lest his large, and, it is hoped, lucrative practice should not permit this, I shall give him that of *by-law* by that lexicographer—the definition of *law* being too long to quote here. "By-law," says Webster, "a private law," etc. "A law aside from the general or public law; a local or subordinate law; a private law or regulation made for his own government." "*The law or institution; to which are added two by-laws, as a comment upon the general law.*—ADDISON."

Read my article over again, Dr. Sinclair, and perhaps you will get an idea, or, at any rate, a new one. Did you really think that I could sit down and say all in that article about a law which I had never seen or read? Really, you pay me too high a compliment.

And, Mr. Editor, permit me to say that this Aylmer, Ontario, Æsculapius is as much in error with reference to the requirements or the conditions upon which gentlemen are allowed to practice medicine in the United States as he is in animadverting me for making a statement of law and facts. I have not his article before me, and I only read it once; but I think I can quote him in substance at least. He says, as a matter of fact, that in most of the States there is a license law. Everybody knows that, and everybody knows that almost any one could get a license, with or without a diploma, until recently. But there is no general law in the United States prohibiting any one from practicing medicine, although there should be. I will state for his benefit that many of the States in the Union have enacted laws governing the conditions upon which gentlemen shall be allowed to practice medicine; but there is a difference, Dr. Sinclair, in a license law and a law governing the practice of medicine.

In conclusion, Mr. Editor, I transmit herewith a copy of the "Announcement" of the Medical Council, containing the *by-laws* thereof, under the "Ontario Medical Act," to-

gether with a copy of that Act; and by these I leave you to judge whether I have stated the case fairly or otherwise. And in this connection I may add, that I have not met a gentleman who knew anything of the case who did not say I presented it fairly and impartially.

I am, Mr. Editor, sincerely yours,

PHILIP CARROLL, M. D.

St. Thomas, Ontario, Canada, April 29th, 1881.

Original Translations.

From the French. By RICHARD H. LEMMON, M. D., Charlottesville, Virginia.

Haschisch, or Resin of Cannabis Indica, for Asthma and other Affections of the Respiratory Tracts.—The family of *urticaciæ* furnishes two species of hemp—the *cannabis sativa* and the Indian hemp, or *cannabis Indica.* The latter alone is used in medicine, and to it the Arabs apply the name "haschisch," which signifies "the herb," thereby intending to designate the preëminent and precious qualities of the plant. This is also the name employed to designate all preparations in which *cannabis Indica* is the active ingredient. In Algiers it is called *haschisch-al-fokara*, or the herb of the Fakirs. The inebriating action of the haschisch causes it often to be used in the place of alcoholic drinks by the people of India and the northern part of Africa. Its properties have been known from most ancient times. By Homer it is spoken of under the name of "Nepenthe." The Orientals employ different preparations of it, mostly associating it with aromatics and aphrodisiacs. They smoke it, chew it, use it internally in the form of drinks, lozenges, electuaries, and even made up into pâtes. It has been found mixed up with musk, cantharides and nux vomica. Haschisch is stimulating and inebriating in small doses: in large doses it is sedative, and causes a kind of voluptuous stupor which has nothing in common with intoxication caused by wine and stupor by opium. Under its influence, objects appear at enormous distances; a few moments seem like an eternity; ordinary sounds impress the ear in a sweet and agreeable manner; one thinks contentedly of all things, and is filled with a sense of great peace. These effects manifest themselves in a time which varies from one to several hours, according to age, sex or tempera-

ment and the physical and mental state of the subject of the experiment. Is it not likely that the habitual and immoderate use of such a drug may bring about some form of insanity or disease? For a great while no medicinal use was made of the properties of this plant, although it is true that the Orientals had for some time back noticed that habitual eaters of haschisch were exempt from pulmonary and rheumatic troubles. It was at Vienna and Berlin that its properties were first rationally studied and utilized as a therapeutic agent. The results there obtained were highly noteworthy. It was established that haschisch possessed an undoubted anti-spasmodic action, which seems to be specially directed to lung troubles, and is of great efficiency in the relief of asthma and all forms of dyspnœa. Further, it was found of signal service in the relief of rheumatism, the various neuroses, insomnia, nocturnal emissions, amenorrhœa; it is also given as a diuretic, and is useful in the different dropsies. By Van den Corput, of Bruxelles, it is used with lupulin as a nerve sedative. By Dr. Debout, a similar preparation has been found serviceable in amenorrhœa accompanied with migraine at the menstrual epochs. Finally, Moreau, of Tours, has employed the drug successfully in the treatment of certain mental disorders.

The chemical composition of cannabis Indica is not well understood; its active principle is contained in a resinous powder of a greenish brown color, called *cannabine* or *haschischine*. It is found in the tops of the plant and deposited in the follicles which surround the seed. The natives collect the resin at flowering time and at the time of fructification. The leaves of the plant are not of much efficacy, as they contain a comparatively small proportion of the active principle. Many preparations of haschisch contain a very small portion of the active principle—sometimes only a trace, and this statement sufficiently explains why practitioners so often fail to obtain any effect from its use. Quite the most satisfactory preparation is that sold under the name of "Extract of Hemp of Bengal," it is much richer in cannabine than are the extracts of Persia, Egypt and Africa. The latter are not of much use in obtaining the proper medicinal effect of the plant, and for this reason their commercial value is relatively small.

In the use of this drug in the form of cigarettes, it should be remembered that in order to obtain a marked effect the smoke should be inhaled into the chest and blown out through the nose. In this way a prolonged contact with a

mucous surface is obtained, and, therefore, more of the active principle is absorbed. The cigarettes should be used from two to four times daily, sometime after meals, and preferably in a close room. Under the preceding conditions, the remedy is very active, never failing if the preparation be genuine. It is often the case that a patient is relieved of asthma or an attack of dyspnœa before a whole cigarette has been smoked. Those subject to asthma should smoke a cigarette, morning and evening, on damp days, or on those occasions on which they have, from experience, reason to dread a seizure.—*La Tribune Medical*, 24th April.

Vaccination and Re-vaccination.—The French Government, through its ministers of Agriculture and Commere, has asked of the Academy of Medicine an answer to the following question: Is vaccination and re-vaccination of sufficient importance to demand an especial obligatory law enforcing it? The Academy, having appointed a Commission who looked into the advantages and inconveniences at issue, sent back, without hesitation, an affirmative answer. The only dissenting voice came from M Jules Guerin, who not only did not vote for obligatory vaccination, but combatted the conclusions of the commission. He stated that many physicians did not believe in vaccination; a larger number disbelieved in revaccination, therefore it would be a great restriction of professional liberty to force some to do that which they did not approve.—*Academy of Medicine*, Paris, April 5th.

Remedy for Catarrhal Diarrhœa.—M. Patain finds the following mixture very efficacious in catarrhal diarrhœa. He first used it in the case of an old man who had suffered for a long time without relief:

℞. Quinia sulphate.....50 centigr.
Syrup of codeine.....30 grammes.
Gum mucilage.....100 grammes.

M. S. Dose: Dessert-spoonful every hour.

The amount of the quinia may be increaed on occasion up to 60, 70, 80 centigrammes, and even one gramme.—*Le Practicien*, May 2d.

Hypodermic Administration of Purgatives.—In Germany and Italy, the tendency has been, of late, to make use of vegetable emetics and purgatives administered hypodermically, usually in the form of the active principles. It is urged in defense of this practice that the desired effects are obitaned much more promptly; and, further, that the disagreeable effects often attending the use of this class of medicines administered by the mouth are obviated.—*Le Praticien*, May 2.

Precautions Against Hydrophobia.—The Prefecture of Police have cau-ed to be placarded throughout Paris the following precautions, to be observed in the case of persons bitten by a dog supposed to be mad. They are the outcome of a special hygienic commission composed of the fotlowing gentlemen: M. M. Chatin (President), Gaubaur, Léan Colin, Trélat and Dujardin-Beaumetz:

1st. The bitten part should be made to bleed as freely as possible. It should then be washed with water—a jet being preferrably used if near by. If water be not at hand, any other harmless liquid may be substituted

2d. Cauterization should now be resorted to, and among the best caustics are the following:—Vienna paste, butter of antimony, zinc chloride and iron perchloride.

3d. The success of cauterization entirely depends upon the promptness with which it is done; therefore it should be resorted to immediately after the bath, by a layman if a doctor be not present.

4th. Cauterization by ammonia and the various alcohols are proven to be quite inefficacious.—*Le Praticien*, *May* 2nd.

The Utility of Examinations through the Rectum as an Aid to the Diagnosis of Coxalgia.—The coxo-femoral articulation, because of its deep-seated situation beneath the soft tissues, is of difficult accessibility by the ordinary methods of examination, and it is by way of the rectum that the finger may be placed in most intimate relation to this part. Just within the basin, and a little before arriving at the obturator foramen, the finger encounters a smooth, nearly quadrilateral surface, corresponding with the floor of the cotyloid cavity, and which, for this reason, is known as the post-cotyloidean or post-acetabular surface. The finger introduced into the extremity of the intestine, attains this surface, and by a careful exploration receives precious indications concerning the condition of the acetubular portion of the pelvis. Hitherto this method of exploration has been reserved for special cases where large pelvic abscesses were suspected. It should now be made an integral part of every examination where coxalgia is believed to exist. In 96 patients affected with coxalgia in the *L'Hospital de Berck-sur-Mer*, 47 times the rectal touch gave diagnostic information which was three times confirmed by operation and resection, and twice by autopsies. The symptoms to be looked for by this method of examination are the following: Pain on pressure in the region of the post cotyloid surface, engorgement of the intra-pelvic lymphatic ganglia, augmentation of the osseous floor of the articulation,

softening and perforation of the post-acetabular surface, pelvic abscesses of different size, and fistulous communications between abscesses within and without the pelvis. Employed in a thorough and diagnostic fashion, together with other methods of diagnostic research, the rectal touch permits us to make an accurate diagnosis of the anatomical changes which may or may not have taken place.—*Le Praticien*, May 2nd.

Use of Catillon's Ergotine for Hypodermic Injection.—(By Dr. Eugene Boeckel) Ergotine, this powerful therapeutic agent, has been employed in the treatment of uterine fibroids, administered hypodermically, since the publications of Hildebrandt. Despite its termination in *ine*, ergotine is not an alkaloid, neither is it a body of definite chemical composition. It is a simple extract, and the solution of Hildebrandt made with alcohol and glycerine produces at each injection a small and painful phlegmon, which, though it rarely suppurates, usually remains several weeks before it is resolved. This inconvenience is all the greater because in order to carry out Hildebrandt's method of treatment the injections have to be repeated daily for months. Dr. Adam, one of the instructors in our free school of medicine, has published a thesis on the hypodermic administration of ergotine based on large experience in my surgical service. We dissolved the ergotine in water and glycerine without the alcohol, and in this way injected a less irritating solution, but one which still left small nodosities at the point of puncture. In 1878, Nikitin published a thesis on *sclerotinic acid*, which is, according to him, the active principle of the *secale cornutum*. I have obtained specimens of this acid made in Berlin and employed it in a watery solution in quite a number of subcutaneous injections. One trouble of this preparation was that it was not thoroughly soluble in water; a more serious one was that with it I never succeeded in obtaining the physiological action of ergot. In 1880, Yuon and Catillon each brought forward a preparation of ergotine said to be superior to any before made. That of Yuon is somewhat complex. It is put up in a liquid form in alcoholic solution, and it also contains salycylic acid—an addition which was made to guard against fermentation. I have no experience with the latter and am not inclined to think favorably of it for purposes of hypodermic injection. On the other hand, the ergotine of Catillon is an alcoholic extract readily soluble in water in the proportion of 1 to 10. Having a patient under my care suffering from a large uterine fibroid, filling the whole of the abdominal cavity, I obtained from M. Reeb, pharmacutist, a

preparation of Catillon's ergotine, and injected half a syringeful of a 10 per cent. solution (50 centigrammes). Three hours afterwards contractions of the uterus so energetic took place, that the patient complained they were quite as bad as labor pains, and ever afterwards I had to make an injection of morphia subsequent to that of the ergot in order to render the cramps supportable. Locally the punctures gave little pain, and were not even followed by redness. After the injections of this kind made during the space of a month, the measurement, which had been 97 centimetres at the umbilicus, fell to 92. I relate this case, not as an example of a cure of uterine fibroid, but to illustrate the rapid and energetic action which Catillon's ergotine has on the uterine fibre. In another case I saw very intense intestinal contractions brought about in a person who had been constipated eight days, by a single injection. I have also seen the most rapid results obtained from its injection in the case of old people with varicose veins of the leg, the veins assuming their natural size in a very short time. Also, I have noticed most prompt effect in cases of vesical paralysis, but it is only proper to add that the effect is mostly temporary, and the trouble usually returns after the use of the drug has been discontinued. Finally, I have no hesitation in affirming that we possess in the ergotine of Catillon an aqueous solution which is reliable, active, and well borne by the cellular tissue, and that in it we have a precious resource in every case in which the physiological action of ergot is indicated.—*Gazette Medicale de Strasbourg*, May, 1881.

From the French and Spanish. By CHAS. R. CULLEN, M. D. (P. O. Richmond, Va.), Henrico Co., Va.

Aspiration in Intestinal Invagination. (Godfrey)—In a case of intestinal invagination of a man aged 37 years, the vomitings were of a greenish-brown color, and of insupportable fæcal odor. The abdomen was swollen and tender, and there was a distinct fluctuation above the curve of the colon. The umbilical region was tympanitic. There was much tenesmus, and the effects of defecation were only bloody mucus. The absence of hernia was apparent on puncturing the intestine in the left and in the right iliac region with a large aspirator. Through the punctures were drawn 475 grammes of liquid similar to that vomited. The vomitings were repeated after long intervals, and a hypodermic injection of

morphine was given to produce sleep. All the bad symptoms, including the vomiting, disappeared the next day. Small doses of morphine were continued. On the third day the intestines resumed their functions, and the sick man was restored in less than a week.—*L' Union Médicale.*

Treatment in Parturition.—Dr. Champonniere, in his hospital treatment, reports less mortality than any from the use of the Lister method of disinfection. His rules are as follows:

1. Before making an examination, the fingers should be dipped in phenic oil.

2. The vagina should be bathed with a stronger solution if the labor is slow, and a compress saturated with the same should be used.

3. After parturition, the vulva should be washed with phenic water—*never* with vaginal injection.

4. When instruments or the hands have permitted germs to enter, after delivery, give an injection of phenic water even into the uterus. After this, use carbolated vulvar compresses, etc.

Such is the simple treatment, which prevents fetid lochial discharges. The convalescence is quick, and the complications rare and not dangerous.—*L' Union Médicale.*

[*Note.*—Who knows *when* germs are introduced?—C. R. C.]

Application of Electricity to Accouchements.—Dr. Apostole proposes the application of the electric current to favor uterine involution, whose arrest is the common cause of post puerperal affections. To this end, he applies a faradic current eight or ten times in six days, in normal cases. He concludes that faridization of the uterus is always inoffensive; that it is a sedative which accelerates the return of the functions, diminishes the lochial discharge, and removes ulterior complications.—*Ibid*, No. 11,741.

Hæmorrhoids.—Dr. Paul Landowski made a new application, to continued bleeding piles, of hot water—as hot as could be borne. The patient was placed in a sitting bath, and by means of the speculum the hot water was introduced into the rectum. By the hot water the bleeding was arrested, and in a short time the hæmorrhoidal tumors completely disappeared.—*Ibid.*

Electric Light on Vision.—In a Cronstadt Club the electric light was introduced. Soon afterwards numerous complaints were made by the attendants at the lecture in regard to their sight. Dr. Lyabinskie studied the question. He considered the evil as attributed to the irregular action of the ciliary

muscles, produced by the variations of the electric light. It is well known that when the ciliary muscles contract the pupil also contracts. In experimenting with the electric light, we can vary at will the intensity of the brightness, and if the light is suddenly increased while the eye is in repose, the point of vision is drawn nearer, and the continued variations of the light produce fatigue to the eye.—*Journal de Therapeutique*, No. 11,730.

Local Application to Cancers.—Dr. Brun proposes the following simple prescription: Sulphate of atropine, 1 gramme; distilled water, 1,000 grammes; mix; put on the cancer, and cover with India rubber cloth to prevent evaporation, and renew every four hours. Relief from pain soon follows. The action of the medicine is altogether local, and consists in a contraction of the vessels with diminution of sensibility.—*L'Union Médicale.*

Wash in Diphtheria. (Vidal)—Tartaric acid, 10 grammes; hydrolate of menthe, 25 grammes; pure glycerine, 15 grammes. With a small mop dipped in this solution, the diphtheritic deposits are touched every three hours. The pulpous mass soon falls off. During the interval the fauces are touched with citron juice. Internally stimulating medication is prescribed with substantial nourishment.

The Question of the Sisters —Our readers already know, from the articles of this journal, the disagreement between the government and the medical corps of the hospitals on this subject. The Council has displaced the Sisters of Charity as nurses in the different hospitals, and filled their places from the laity, against the unanimously expressed protests of the Medical Faculty. If we do not deceive ourselves, the laity cannot fill the places of the Sisters of Charity. The hospital of St. Martha finds itself unable to obtain the requisite nurses, and being of Jesuitish faith, it gradually died. Already the hospital of Beaujou, and in 1880 La Petrié, and we hear that St. Antoine this year, will also regret the change. —*L'Union Médicale, and others.*

[*Note.*—The experience of most hospitals in the large cities in different parts of the world gives the same results—that religious nurses are much better in many respects than the irreligious. Money cannot purchase the devotion of the Sister of Charity, and in America paid nurses are too expensive and too difficult to procure. About forty years ago the Richmond Medical College employed the Sisters of Charity, who carried out their own views. They refused to receive venereal patients and females about to be confined, unless

they were married. As the hospital was designed to draw students, and to give them practical knowledge in all diseases, this programme did not work harmoniously. After dismissing several Sisters and obtaining others, and paying their travelling expenses to and from the North, and finding the same programme carried out, the Sisterhood was dismissed and paid nurses employed. The fact is, that very sick people (unless of the cast-iron nature of French philosophers, and some of them died repentant) need religious conversation on dying beds, and the French government will retrace their steps before many years and replace the Sisters of Charity in the hospitals.—C. R. C.]

Mahometan Medication.—The Sultan of Morocco suffered many days with violent attacks of gastric pain. In the "Good Mahometan," he says: "There is only one God who is God, and Mahomet is his prophet." He sends one of his faithful servants with a mission to buy with gold the brush with which the Kaasha is rubbed every day, and the light cloth with which his holy person is covered. These articles belonging to the priests were readily obtained. The Sultan suspends the brush in his chamber, and wears the cloth as a sacred amulet. Among the Mahometans, faith is the saving power, and the Sultan rapidly recovered.

These simple and original remedies are also in use among the Christians of the present day. Small pieces of zinc worn on the breast are to prevent paralytic attacks; and to prevent rheumatism, all that is necessary is to wear or carry a horse chestnut in the pocket.—*Journal D' Hygiene.*

[*Note.*—In this country, for the prevention of rheumatism, an Irish potato or a piece of brimstone is also used. Amber beads are also used around the neck to prevent croup among children. As amber was the first article to develop electricity, the Greek name "electron" has been retained.—C. R. C.]

Eclampsia.—Dr. Maséni, of Italy, draws the following conclusions:

1. The pathology of eclampsia is obscure; but in accord with experimental physiology, the source of this affection has (probably) its origin in the nervous centres, and especially in the medulla oblongata.

2. The nature of the alterations are unkown. We are ignorant whether they are produced by a toxicological agent or by a reflex action.

3. The presence of sugar in the urine of persons with eclampsia, *can* indicate a functional alteration in the medulla oblongata, but is of no pathological importance.

4. The presence of sugar seems to have a direct proporton to the attack of eclampsia—the sugar ceasing with the end of the attack.

5. The temperature is also in proportion to the attack.

6. The urine of the *eclamptic* does not always contain albumen, and anasarca is not constant.

7. The abatement of the fever is not continuous. Sometimes the fever is high, sometimes low.

8. The *persistence* of high temperature indicates a complication corresponding to the eclampsia.

9. The two best indications of treatment are the following: To combat the passive congestions and to lessen the nervous excitability.

The medication to meet these are two: First. Bleeding, and the second, chloroform and hydrate of chloral.—*Lo Sperimentale.*

Sunstroke.—M. Lortet, in his Voyage Around the World, notices the great power of the sun's rays in different parts of Palestine, particularly near Ezdrelon, south of Nazareth. In passing over the plain, the surface of the ground being of clay soil, the rays of the sun in the evening will be more intolerable than the heat of the sun at midday. The inhabitants protected their face and jaws from below, only leaving eyelets to see. The Touregs of Sahara similarly protected their head from the reflex heat of the sand.—*Lyon Médicale.*

[*Note.*—When passing the great American desert west of the Colorado many years ago, the thermometer indicated the temperature at 130° at midday, and 110° at midnight, and protection to the face was a great relief from the heat, direct and reflex.—C. R. C.]

Arsenic in Phthisis. (Hanot)—In pulmonary tuberculosis, arsenic restores the appetite, fills up the muscles, and augments the vital energy; at the same time night-sweats and fever are reduced, cough and expectoration moderated, and the diarrhœa and vomiting ameliorated. The preparation most used is Fowler's solution, or the arsenite of soda (liqueur de Pearson). With mineral water arsenic is most active. The water of Boutoule, two half glasses a day, are recommended. The patient needs wine with his meals, or immediately afterwards, gradually increasing the quantity. During the winter the water should be used ten days, and cod liver oil the balance of the month.—*L' Union Médicale.*

Goitre.—Dr. Gauche, of Bayonne, reports a case of goitre cured by subcutaneous injections of iodine, and Dr. Heurot

another case cured by electrolysis after injections had failed. —*Ibid.*

Pomade for Hæmorrhoids. (Sabal)—℞. Iodoform, 60 grs.; pulv. opii, 15 grs.; vaseline, 60 grs. The iodoform must be finely pulverized. The pomade is applied morning and evening. With the unction, first warm bathing, followed by cold bathing. To mask the iodoform, tannin, 60 grains, may be added. As a laxative, use—

℞. Sulphate magnesia.....
Carbonate magnesia.....
Sulphur flowers.....
Sugar of milk.....$\overline{aa}$ ℥iv
Pulv. anise.....℥ij

M. S.: One tablespoonful daily, and, if necessary, twice a day.

Pomade Anti-Hæmorrhoidal. (E. Barré)—

℞. Iodide of potassium.....30 grs.
Extract of rhatany.....60 grs.
Laudanum (of Sydenham).....½ gr.
Extract of belladonna.....½ gr.
Tallow..... 1 oz.

M. S.: Anoint morning and evening, preceded by bathing with glycerine, and continued poultices over the affected portion.—*L' Union Médicale.*

Proceedings of Societies.

Medical Society of North Carolina.

The Medical Society of North Carolina met in Asheville on 31st of May and 1st and 2d of June. President Dr. Richard B. Haywood, of Raleigh, and about eighty members were present at roll-call.

The Board of Medical Examiners met on the 30th, and continued their session until the Society adjourned. Thirty-seven candidates received license, and several were rejected or allowed to withdraw.

The work done by the Sections was unusually good. The following were the Chairmen of the different Sections:

Dr. A. Holmes, Clinton, Surgery.

Dr. W. C. Murphy, South Washington, Materia Medica and Therapeutics.

Dr. Hubert Haywood, Raleigh, Microscopy and Pathology.

Dr. I. Wellington Faison, Fulton, Practice.

Dr. Willis Alston, Littleton, Obstetrics and Diseases of Women.

A conjoint session of the Society and State Board of Health was held, at which time the Secretary read his yearly report. A very decided interest was awakened in this auxiliary of the Society.

The biennial reörganization the Board of Health is as follows:

Dr. M. Whitehead, Salisbury, President.
Dr. Thomas F. Wood, Wilmington, Secretary.
Dr. George A. Foote, Warrenton.
Prof. Simmons, Wake Forest College.
Prof. William Cain, C. E., Lenoir.
Dr. Charles J. O'Hagan, Greenville.
Dr. J. M. Lyle, Franklin.
Dr. S. S. Satchwell, Pender county.
Dr. R. L. Payne, Lexington.

The volunteer papers were of a superior character. One very interesting one by Dr. Hornaday, on *Ainhum*, was the centre of attraction for some hours. The specimen was exhibited. Morbid specimens of syphilis of the brain were also exhibited.

The oration by Dr. Long, of Newberne, was delivered, according to custom, before a mixed audience, and was frequently applauded.

Very few resolutions came before the meetings, and more professional work than ever before was done, and that principally by the young men.

The Committee on Nominations made their report on the evening of the second day, as follows:

President—Dr. Thomas F. Wood, Wilmington. *Vice-Presidents*—1st, Dr. Thomas J. Moore, Charlotte; 2d, Dr. D. J. Cain, Ashville; 3d, Dr. S. B. Evans, Statesville; 4th, Dr. John McDonald, Washington. *Secretary*—Dr. L. J. Picöt, Littleton. *Treasurer*—Dr. A. G. Carr, Durham. *Orator*—Dr. A. W. Knox, Raleigh. *Delegates to Virginia Medical Society*—Dr. R. L. Payne, Lexington; Dr. Duncan N. Patterson, Dr. N. S. Henderson, Dr. George A. Foote, Dr. J. N. Tucker, Dr. Joseph P. Bryan.

The valedictory address of the retiring President was exceedingly humorous, and such a masterly satire against the fashions in medicine, new and old, that 1,000 extra copies were ordered to be printed.

The Society adjourned on Thursday, June 2d, to meet in Concord on the second Tuesday in May, 1882.

Analyses, Selections, etc.

Report of the Committee, 1881, on Journalizing the Transactions of the American Medical Association.—So much of interest has been manifested in the subject of this Report, and so many have expressed a wish to see the unabridged Report, the concluding resolutions of which have already been published, that we yield our space for a *verbatim* reprint. It is hoped that the subject will receive cautious, mature consideration, so that whatever step may be taken by the Association shall prove beneficial to the organization, and promotive of the interests of the American medical profession:

At the meeting of the Association in New York, in 1880, the President's address contained a statement of the fact that complaints were constantly made in regard to the publication of the *Transactions*, and a suggestion that the Association refer the subject to some proper committee, who should report whether any plan can be devised which would, better than that now pursued, bring the proceedings of the Association before the profession.

In accordance with this suggestion, the undersigned were appointed a committee to consider the subject. This they have done, and beg to lay before the Association the following as the result of their labors:

The methods feasible for the publication of our *Transactions*, outside of the one now adopted, seem to be two, viz:

(1.) The issuing of a simple record of the business of each annual meeting; all the scientific papers being left in the hands either of their authors or of a committee, to find their way into the most convenient channels afforded by medical periodicals.

(2.) The publication of a special journal, under the control of an editor appointed by the Association, the business arrangements being entrusted either to a manager similarly appointed, or to some reliable publishing-house.

Each of these plans may now be considered somewhat in detail.

(*a*) As to the present method. The objections to this may be summed up as follows: *First.* The expense to the Association, not counterbalanced by an extensive sale of the annual volume. *Secondly.* The delay in the appearance of the papers, so that they are often already stale, from having been noticed in journals, etc. *Thirdly.* The very limited circulation of the volume, and its inaccessibility as well as incon-

venience to the general reader. Hence the authors are at a disadvantage, in that their papers are submitted to a small segment only of the profession; while to the great body of available readers, the results of the labors of the Association and its members are practically buried.

So far as we can see, these objectionable features are inherent in the system now prevailing, and can only be done away with by a total change in the method of publication.

(*b*) As to the second of the plans mentioned, it may be said at once that its advantages and disadvantages are both negative. It would not involve anything like the outlay of money required for the volume as now issued. It would not prevent authors from spreading, or the profession from acquiring, the views contained in papers read before the Association.

But, on the other hand, neither would it afford to the Association the opportunity of keeping its material together, and presenting to its members the fruit of its year's labors as a whole. Thus the value of the business record, at best interesting only to a few, would be lessened by the absence of the scientific papers; while the latter, by being diffused through the sea of periodical literature, would lose the weight of the Association's endorsement, and fail to swell the credit and influence of the organization.

(*c*) There remains to be considered the third method—the publication of a periodical, as the organ of the Association, and under its control. Whether it would be advisable that this should be an entirely new enterprise, or merely the acquired possession of some already established journal, it will be worth while to ask when the Association shall have determined upon taking action at all. Either plan would have its advantages.

Your committee regarded the question of mere expense of printing as the first one demanding their attention. And so far as their inquiries went, they were led to the belief that the amount of material now issued yearly in the volume of *Transactions* could be published in journal shape at very nearly the same cost, whether the weekly, monthly or quarterly form were chosen.

In general terms, it may be said that a quarterly, each number containing 252 pages, would involve an outlay of about $2,400 per year. A monthly, giving the same aggregate of reading matter—say 84 pages in each number—would cost about the same; while a weekly would afford, at the same price, only about 20 pages.

These statements are only approximative, and it must be borne in mind that they refer to the mere cost of printing, binding and distributing, the work of editing being done free of charge by the Committee of Publication.

But let us place them side by side with a report kindly furnished us by the Treasurer:

"In reply to your inquiry as to the *cost of publishing the Transactions* of the Association, according to the present method, I would state that this, of course, varies. The greater the number of copies printed, the smaller will be the price per copy, as a general rule, although this is not invariably the case, as some of the volumes are more expensively illustrated or contain a large amount of tabular matter. One of the best exemplifications of this fact is the volume of 1876, which cost only $2.22 per copy, but the Prize Essay of the same year cost, with its expensive tables and illustrations, $4.76 per copy, although the same number of copies of each volume was printed. Perhaps I can give the best idea of the average annual cost of the *Transactions* by the following tabular statement:

"COST OF THE TRANSACTIONS.

Year.	No. of Copies Printed.	Total Cost.	Price Per Copy.
1870	650	$ 2,133 01	$ 3 28
1871	750	1,352 37	1 80
1872	1,100	3,744 33	3 40
1873	900	1,736 30	1 93
1874	800	1,744 71	2 18
1775	950	1,873 22	1 97
1876	1,250	2,633 44	2 10
Prize Essay	1,250	5,660 76	4 52
1877	1,300	2,020 24	1 56
1878	1,300	4,113 76	3 16
1879	1,500	2,922 35	1 95

"The total cost of the eleven volumes included in this table was $29,934.49; 11,750 copies in all were printed, the average cost per copy being $2.55."

Besides the mere expense of production, however, the issuing of a journal would necessitate the employing of an editor, to whom a salary must be paid. We need hardly urge that the man chosen to fill this post must be thoroughly competent and faithful, or the enterprise will utterly fail; or that, as his function would be most important, and the demands upon him very heavy, so his compensation should be a generous one.

The great aim of the movement would be to furnish the Association with an organ—an exponent of its principles, a medium of communication between it and its members, between the members themselves, and between the Association and the profession at large. The columns of this journal should be open to all respectable contributors. It should be controlled by no clique, free from personalities, high in tone; discriminating, but not prejudiced; independent, but not erratic. All this—and nothing less will warrant any hope of success—implies the securing of the most able editorship. It would be necessary also to provide for the employment of one or more assistant editors, and for the payment of contributors.

Beyond all doubt a weekly, properly conducted, would far better meet the requirements of the case than either a monthly or a quarterly journal; but the labor of editing it would also be much greater. Should the Association resolve to undertake this enterprise, the question of form would be a most important one.

Such a periodical, maintained by the Association out of its funds, should be supplied as a right to all the members, and should be furnished to outside subscribers like any other journal. This leads us to an inquiry as to the actual numerical force of the Association, since here must be found the nucleus at least of the pecuniary support of the concern. Now it appears, from data furnished by the Treasurer, that the membership fluctuates greatly from year to year. Very few of those who attend any meeting as delegates can be counted on for the regular payment of subsequent annual dues. Most of them let their membership lapse, when the place of meeting is inconvenient, or they have no personal interest in the business to be transacted. Hence the income of the Association varies accordingly. By a rule now in force, a payment of dues once in three years is sufficient to obviate forfeiture, and we may let the following testimony of the Treasurer show what the effect of this leniency is:

In his report for 1879, the Treasurer, after speaking of the

failure of many members to pay their dues, and of the causes of it, says:

"Among them may be particularly mentioned the provision of the by-laws which specifies that 'any permanent member who shall fail to pay his annual dues for three successive years shall be dropped from the roll of permanent members.' Section 6 of the Plan of Organization of the Association, as well as the by-laws, expressly state that the contribution of each member is an annual assessment or due—that is, a due *annually paid*. In apparent conflict with this is the by-law just referred to, by which a member is allowed to pay his dues but once in three years, and still retain his membership. This was certainly intended as an accommodation to those who might be prevented by unavoidable circumstances from complying with the annual requirements as to dues, and by such is deservedly appreciated. The experience of the Treasurer, however, during another year of practical observation of the financial working of the Association, and the frequently expressed sentiments of members on this very point, convince him that this liberal action is too often interpreted—he thinks unfairly—as a means to evade the regular payment of annual dues. It has become, indeed, the habit of too many of the members knowingly to regard it as a triennial instead of an annual assessment, under which they are still able to retain their place on the list of members of the Association."

The following copy of a letter received by the Treasurer will serve as a sample of the working of this rule:

"————, September 12, 1880.

"Dr. R. J. Dunglison: *My Dear Sir*,—Find five dollars enclosed, for which send me the *Transactions* when published.

"The rule of our Society requiring the payment of $5 every year, whether the member attends or not, is too rigid, and one that I will not comply with. I am willing to pay the fee when I am a participant, and once in three years if not: and I see by the italics that it has been changed.

"H—— N———."

Let us now take again the testimony of the Treasurer as to the actual income of the Association from its membership:

"Philadelphia, January 29, 1881.

"Dr. J. H. Packard, Chairman of Committee on President's Address: *Dear Doctor*,—In reply to your letter of in-

quiry as to 'cost of the present method of publishing the *Transactions* of the American Medical Association,' and also as to the changes in the membership of that body, I gladly give you all the information in my power. On the latter point you desire to learn 'how many members pay continuously every year, and how far there is a change from one year to another according to place of meeting,' etc. You also ask, 'Can it be said that the Association has anything approaching to a fixed income, to be relied on for publishing purposes?' It had been my intention to refer to some of these points in my own annual report, as matters which the Association itself ought to know, and which the Treasurer's books could alone supply. Your inquiries afford me, however, an equally desirable opportunity of communicating such statement.

"I find upon a careful analysis of the triennial list of the members of the Association, published in the volume of *Transactions* for 1878, some suggestive statistics, from which may be deduced the practical information you seek as to the changes in membership. This list includes the names of those who had become connected with the Association between 1875 and 1878, and those of the older members who had not forfeited their membership by inattention or neglect of payment of their annual dues for three successive years. To this list I add the figures derived from the Treasurer's accounts, covering additional receipts for the years from 1876 to 1879, inclusive. I do not embrace the year 1880 in this estimate, as I presume some of the members still intend to pay their dues for that year. My experience as Treasurer has been that a certain number always wait at least a year or more after the date of the previous annual meeting before forwarding their dues.

"Omitting from the estimate those who have since died and those older members who have not continued their membership in the Association, I find a total of 2,108. Of these, 710 became members before the year 1875; and 1,398 during the years 1785, 6, 7, 8 and 9.

"Of the 710 *older members* just referred to, 408 (or 57½ per cent.) paid their dues regularly and consecutively up to 1879, inclusive, and the remaining 302 did so more or less irregularly, many of them only once in three years, thus retaining their membership under the rule of the Association which provides that a member shall not be dropped from the rolls until he shall have failed for three consecutive years to pay his dues.

"In the statement I am now about to make of annual changes of membership, I mention under each year the name of the place of meeting, to aid you in drawing any conclusions of a geographical nature from the statistics thus furnished.

"In 1875, the meeting was held at Louisville, Kentucky. Of 223 delegates present at that meeting, for the first time, 110 (or about 50 per cent. paid their dues for that year only, never took any after interest in the Association, and forfeited their membership for non-payment of annual dues; 52 members (or 23 per cent.) have continued to pay their dues regularly every year to 1879, inclusive; while 61 (or 27 per cent.) have paid more or less irregularly—by which I mean that they have paid a year or two at broken intervals, or have saved themselves from the fate of forfeiture of membership by paying once in three years. Of the 223 members who joined the Association at this meeting, 114 (or 51 per cent.) are no longer members of that body. This number will be gradually increased by forfeiture of membership. A small proportion of this loss is doubtless due to death, but the nonpayment of dues from lack of continued interest is, as already stated, the chief cause of the defection in this and every other year now under study and analysis.

"The meeting in 1876 was held at Philadelphia. Of the 411 new members present at that time, 150 (or 36.5 per cent.) paid their dues for that year only, and never repeated the performance of that annual duty. As I stated in my Report for 1879, many of these were Centennial visitors, who attended the meeting of that year with laudable, but not wholly professional, motives—members of but a single year, whose interest in the Association was not permanent, and who were connected with it by no binding affinities. Of the 411 new members of 1876, 104 (or rather more than 25 per cent.) have paid their dues punctually ever since; while 157 (or more than 38 per cent.) have paid their dues irregularly, as already stated of the members for 1875. Of the 411, 254 (or 62 per cent.) now remain on the rolls of membership of the Association—a larger percentage than for the other years cited.

"The annual meeting for 1877 was held at Chicago; 313 new delegates were present. Of these, 151 (or rather more than 48 per cent.) paid their dues but once, and forfeited their membership. Only 89 (or 28½ per cent.) have continued to pay their dues punctually; 73 members (constituting more than 23 per cent.) have been able to retain their

footing in the Association by occasional payments. Of those who joined that body in this year (1877), 161 (or 51 per cent.) still remain upon the list of membership.

"The annual meeting of 1878 was held at Buffalo, N. Y. Of the 269 new names appearing at this time, 102 (or 38 per cent) paid their dues that year for the first and only time, and subsequently lost their membership; 130 (or 48 per cent.) have continued to pay their dues regularly every year, and 37 (or 14 per cent.) have paid irregularly, but still retain their membership. As the payments for 1880 are not yet complete, I can deduce no statistics as to the number of members of 1878 still on the rolls, as the three privileged years for non-payers have not yet expired.

"The meeting of 1879 was held at Atlanta, Ga. It is perhaps too early to draw any conclusions from the statistics of that year, as occasional payments are still made for 1879 by those who desire to complete their sets of the volumes of *Transactions*. As the figures at present stand, however, out of 182 new delegates to the Association at that meeting, 122 (or 67 per cent.) have not since paid their annual dues.

"The very valuable list prepared by Dr. J. M. Toner, and published in Volume XXXI of the *Transactions* for 1880, giving the names of all the members who have been connected with the Association since its organization, up to and including 1880, probably embraced, at a rough estimate on my part, about 6,000 names of members who attended the annual meetings previous to 1875, not including members by invitation. I exclude for the moment all those who joined the Association from 1875 to 1879, inclusive (already considered), so that I may give you a proper idea of the retention of membership by the older members.

"Of this large number of *older members*, approximating 6,000 in all, only 408 have continued to pay their dues in an unbroken series up to the end of 1879; while 302 have paid irregularly, and in some cases forfeited their membership, during the past few years; 679 names of these older members, in different degrees of pecuniary standing on the Treasurer's lists, are all that remain of the large number who were connected with the Association at various times within the twenty-eight years which elapsed from the organization of that body in 1847 up to and including the year 1874.

"For convenience of reference, I include the principal facts already given you in regard to the later members (1875–9) in a tabular statement:

	1875. Louisville, Ky.	1876. Philadelphia, Pa.	1877. Chicago, Illinois.	1878. Buffalo, N. Y.	1879. Atlanta, Georgia.	General Average, 1865 to 1879 (inclusive).
Paid once only (at registration)	50 p. ct.	36 5 p. c.	48.3 p. c.	38 p. ct.	67 p. ct.	45.5 p. c.
Paid continuously	23 p. ct.	25.3 p. c.	28.4 p. c.	48 p. ct.	33 p. ct.	31 p. c.
Paid irregularly	27 p. ct.	38.2 p. c.	23 3 p. c.	14 p. ct.	.....	23.5 p. c.
Continuing their membership to 1879 (inclusive)	49 p. ct.	62 p. c.	54 p c.	.....	.....	.....

"In regard to your inquiry, *Whether the Association has anything like a fixed income?* I would say that the annual receipts of the Treasurer vary greatly, as the figures I have already given, showing the fluctuations in membership, abundantly testify. When the Association meets in the larger cities, accessible to a mass of members and delegates, the funds are of course correspondingly augmented. There is no fixed amount upon which the Association can rely, as everything depends upon the nature of the attendance at the meetings, and upon the wish of those who are not present to possess the annual volume. I have already shown how fluctuating both of these elements are. In examining the Treasurer's accounts for the fifteen years between 1865 and 1879, inclusive, I find the following statements of the condition of the Treasury recorded:

"During the following years, including the meeting at each place named, the receipts of the Treasurer aggregated $5,000 *or more:* 1872, Philadelphia; 1876, Philadelphia; 1877, Chicago; 1878, Buffalo. Nearly $3.000 of the latter year, however, were paid by those who did not attend the meeting.

"During the following years the receipts were *over* $4,000: 1873, St. Louis; 1874, Detroit; 1875, Louisville.

"During the following years the receipts were *over* $3,000: 1868, Washington; 1869, New Orleans; 1870, Washington; 1879, Atlanta.

"During the following years the receipts were *less than* $3,000, but in no year less than $2,000: 1865, Boston; 1866, Baltimore; 1867, Cincinnati; 1871, San Francisco.

"The amount paid at the time of registration at the annual meetings has averaged, during the past fifteen years,

$2,194.91 annually; to which must be added the amount received from the payment of dues by the permanent members and small sums derived from the sale of back volumes, by the former Treasurer especially. These have averaged annually the sum of $1,785.96. The average annual income has, therefore, been $3,980.67. The actual receipts have not been less than this amount for eight years past (1872 to 1879, inclusive), with but one slight exception, and in five of these years they have exceeded $5,000, but have never reached $6,000.

"Should you desire any other information, which it may be in my power to give you, I hope you will not hesitate to call upon me. Yours, very truly,

"RICHARD J. DUNGLISON, Treasurer."

We suggest that it would be essential to make the membership, once assumed, a permanent obligation, in order that the revenues available for meeting the expenses of the periodical might be definitely known. Toward this end, it need scarcely be said, the furnishing of such a *quid pro quo* would afford a most powerful and effective means.

We would suggest another change in regard to the membership of the Association, viz: that it should be attainable by application by all members of County Societies in any State; such "members by application" receiving the journal at the same rate as those who come in as delegates on the present system. This would not only aid the enterprise in question, but would act powerfully in increasing the general interest in the existence and activity of the Association.

One other idea may perhaps be thrown out here. Possibly, in the event of the establishment of a journal as the organ of the Association, the State Societies also might find it the most advantageous channel through which the scientific papers read before them could be given to the profession at large; and a vast amount of material, some of it highly valuable, might thus be saved from comparative oblivion, and added to the common stock of knowledge. Such an arrangement would be in entire accord with the relation of the State Societies to the Association, as its tributaries and constituents.

Upon the ability and tact of the editor, as well as upon the judgment, energy and capacity of those entrusted with the business part of the enterprise, would depend the amount of outside subscriptions. Again, the large and wide circulation of the journal would make it desirable as an advertising me-

dium, and hence would accrue an important addition to its pecuniary support.

The question whether the Association is in a position to assume the responsibility of issuing a periodical—requiring (1) a subscription list consisting of members who pay their dues from year to year, (2) the hearty and efficient assistance of contributors of the highest rank as writers, (3) an outside subscription list, (4) an advertising patronage—cannot be fully dealt with without opening another very momentous inquiry, viz: What would be the effect of such a publication upon the Association itself?

Let us quote from the Presidential address which called your Committee into being some details as to the history of the *British Medical Journal:*

"Briefly to summarize the facts, it may be stated that the British Medical Association was founded forty-six years ago by Sir Charles Hastings, a country physician, mainly for the purpose of advancing the professional interests of country physicians. Its growth was rapid, and in time it became British rather than provincial. The greatest men in England became annual presidents, its meetings were held in London, Edinburgh and Oxford, and as a body it was highly respected. It soon appeared, however, that there was a comparatively narrow limit to its powers of extension. At each meeting considerable accessions of new members joined, but they soon fell off again. Then it was found necessary to convert the annual volume of *Transactions* into a weekly journal. It was noted that the *Provincial Transactions*, admirable as they were, formed a volume which did not appear for some months after the annual meeting; that such a volume was put upon the shelves and occasionally referred to, but rarely read through; that it did not appear until the interest of the meeting had faded away, and until a good deal of the freshness had been taken off the papers by short abstracts and piecemeal reports; and that on the whole it was impossible to expect the Association to spread unless means were provided for more constant intercommunication between the members, and for the more rapid publication of their contributions to medical science and the more continuous discussion between the members of subjects of medical, social and ethical interest in the intervals between the meetings. The publication of this journal had at once a favorable influence on the fortunes of the Society. The numbers grew from 1,000 to 2,000, and the Society continued to make slow and steady progress, adding definitively about thirty

new members a year to its total numbers. Twelve years ago, however, upon the resignation of Dr. Markham, a new editor was appointed—Mr. Ernest Hart, who was at that time co-editor of the *Lancet*, accepting the office of editor of the *British Medical Journal*, on condition that he was allowed considerably to increase the size of the *Journal* and to conduct it in a thoroughly energetic and independent manner, in such a way as to make it worthy of being the weekly organ of a powerful Association. Under his direction the *Journal* was at once doubled in size. It was brought into a state of scientific and social activity, and made an organ of the most recent scientific and professional work, and its editorial departments conducted with vigor and literary skill. The effect upon the fortunes of the Association was magical. Five hundred new members joined that year, and for each successive year since that time from five hundred to six hundred new members have been added to the list by the simple process of sending out throughout the country once or twice in the year copies of the *Journal* and forms of application for membership. The result has been that whereas for the thirty-six years that the Association had existed, it had only slowly crept up to about two thousand, it has, during the ten years that Mr. Ernest Hart has edited the *Journal*, risen in numbers until it now includes eight thousand members of the profession, and, according to the statements printed in the *Journal*, it circulates another fifteen hundred copies outside the profession."

It is by no means certain that the condition of our own Association at the present time is comparable with that of the British body at the time when it *Journal* was established. Nor is it any more to be assumed that the profession in this country is so far composed of similar material to that in Great Britain as to warrant a confident prediction of like success to an enterprise such as that which we are now considering. We do not hesitate to assert that the practical intelligence of American physicians and surgeons is as highly developed as that of any similar body of men in the world. But it does not follow, and it cannot as a fact be maintained, that their average of literary cultivation is equal to that of their fellows in the older countries.

Yet, in view of the educational influence of a well-conducted periodical press, we cannot but feel assured that, were the American Medical Association to succeed in establishing such a journal as is contemplated by those who have from time to time agitated the subject, it would have a most pow-

erful agency in elevating the profession, in developing its forces, and in promoting the best interests of the science which it is our aim to cultivate.

We would, therefore, sum up what we have said in the following statements:

The mere expense of the publication of a periodical journal by the Association would not greatly exceed that of our present volume.

The main tax of such a scheme would consist in the payment of the editor, his assistant or assistants; we think it would amount to at least $6,000 per annum.

The business part of the enterprise could be provided for either by placing it in the hands of a retail publishing house or by securing the services of a competent man, who would find his compensation in a percentage of the receipts promoted by his ability and energy.

While it would be undue rashness on the part of the Association to commit itself hastily to an effort which might involve expenditure beyond its resources, the probability of great advantage from a change in the mode of issuing its publications warrants a careful consideration of the matter.

We, therefore, respectfully offer the following preamble and resolution:

Whereas, in the words of our President of last year, "it seems tolerably certain that, if for the present bulky, tardy, little-read and unproductive volume of *Transactions* there could be substituted an active, vigorous weekly journal, read everywhere, and with a large income, such as would naturally come to it from its advertising sheet, there would be in such a change the earnest of a rapid and important growth in the numbers, influence and usefulness of the American Medical Association;" therefore,

Resolved, That the President appoint a committee of five members, whose duty it shall be to digest and report in detail, as early as possible, a plan for the publication of a journal; said plan to include the nomination of an editor, the designation of his salary, of the form of the journal, of the time, place and mode of publication, and of the terms to outside subscribers, with such other particulars as may enable the Association to arrive at a just conclusion as to the feasibility of the enterprise and the propriety of their assuming its responsibility.

All which is respectfully submitted.

[Signed] John H. Packard, S. D. Gross, J. S. Weatherly, E. S. Dunster, Walter R. Gillette, Committee.

The Relation of Pharmacy to Medicine.—The following communication, which may be of interest to a large number of our readers, we clip from the *College and Clinical Record*, of Philadelphia, May, 1881:

"NEW YORK, April 15th, 1881.

To the College and Clinical Record:

The relation of the drug trade to the medical profession is one of the questions of the day, and any new thing in reference to this subject is, therefore, of interest. Especially is this true during the present transition state; and, when a move in the direction of a higher stand upon the part of pharmacy is taken, it becomes of importance as well. I therefore take the liberty of sending you the following as a communication to your interesting journal, hoping that similar communications may be received by you from other pharmacists of like mind, and that the example thus set may be of influence in settling the much-vexed question at issue.

I herewith enclose the business platform adopted by a firm of well-known manufacturing pharmacists in defence of the position which they occupy in relation to the profession.

Very respectfully yours, F. E. STEWART.

'*To the Medical Profession*:

GENTLEMEN,—We respectfully beg leave to call your attention to the following circular, which explains the relations which we occupy to the profession as manufacturers and dealers in pharmaceutical preparations:

Our business consists in the choice, preservation, preparation and combination of medicines. We are merchants, in that we buy and sell; manufacturers, in that we deal in our own productions. On a trade basis only do we present ourselves, and to the rules of trade do we conform.

Drugs are tools in the hands of the physician, as surgical instruments in the hands of the surgeon. The knowledge of knife making does not qualify for the use of the knife, neither can a knowledge of drugs, without a knowledge of disease, justify their use in the treatment of the sick. We do not, therefore, attempt to usurp the prerogatives of the physician by advertising to cure the sick, or by proclaiming ourselves original investigators in therapeutics.

We practice pharmacy, not on a professional but on a trade basis. For this reason we do not write works on pharmacy, or make known our trade secrets for the benefit of our competitors. We invent new processes and machinery, and exercise exclusive control over them, but we do not pa-

tent drugs, or combinations of drugs, for these we do not look upon as proper objects for protection by patent; neither do we patent forms of medical preparations, or seek to gain control of the same by secret formulæ. An exclusive right to the sale of a drug, or a combination of drugs, is injurious to trade, as it prevents legitimate competition, which is the life of trade. It is unfair to the consumer, as it enhances price without a just equivalent. It has a tendency to deteriorate quality, also, and it enables unscrupulous manufacturers to create an artificial demand by advertising fictitious values.

The only trade-mark which we possess is our name and reputation, and it is of value to us but to the extent that we make it so by business enterprise and integrity. The trade-mark system, as at present constituted, is no guarantee whatever as to the quality of manufacture, and, therefore, not a protection to the profession and the public.

Our relations to the war waged at the present time upon "trade-mark pharmaceuticals," has been entirely under the leadership and direction of Dr. F. E. Stewart, of New York city, and, while Dr. Stewart has appeared as the champion of the medical profession and legitimate pharmacy, as well as in the interests of trade, our action has been taken from a trade basis purely.

New Drugs.—It has always been our desire to promote the advance of scientific progress, recognizing that trade, in every department, is directly dependent upon increase in knowledge. Though not original investigators in therapeutics ourselves, that being outside the province of trade, we do all in our power to favor therapeutical investigation. For this reason we take great pains to secure new drugs, and all information possible concerning them, for the purpose of presenting the same to the profession for scientific examination. From the great variety presented to our notice by trade, we select a few, which we are led to believe are of sufficient worth to justify our action from a therapeutical point of view, and after first submitting them to test, that we may determine more definitely their value before risking our capital, present them to the profession for trial; these trials we guarantee to publish, good, bad, or indifferent, and if we have made an error in judgment in our selection of the drug, the loss is ours. If, on the contrary, the drug prove to be a valuable one, we have added to scientific knowledge, and thus conferred a benefit upon humanity, the medical profession, and also upon the trade.

Literature.—Practical medicine is largely empirical, and is likely to remain so, at least until physiology and pathology throw greater light upon the action of drugs in health and disease. The literature of therapeutics is, therefore, in a great measure, but the history of inconclusive experimentation. In the study of the literature pertaining to the action of drugs, three things should be taken into account. First, the ability and reliability of the experimenter; second, the nature and number of experiments sufficient for verification; third, the results of the well observed and substantiated experiments. The unsupported testimony of the most careful and conscientious scientific investigator cannot be accepted as conclusive evidence; but the accumulated results of the extended experience of many competent observers is the only safe criterion to guide the physician in the treatment of the sick. If the profession had waited for an accumulation of this kind, however, before employing new drugs, the properties of rhubarb, cinchona, and opium would never have been known. It should be the purpose, therefore, of trade, as well as science, to do all in her power to facilitate experimentation for the purpose of clearing up all representation regarding new drugs, and coining it, as far as possible, into a definite scientific literature! With this intent we have adopted the following plan, suggested by Dr. Stewart, and recognizing the benefit its adoption must be to trade by increasing the demand for new drugs, we offer our aid to the profession in carrying it out.

The plan suggested is to treat the patients in the numerous hospitals and dispensaries throughout the country with drugs which have proved themselves of value, and report the results to the medical press. The collection of these reports would furnish, in a short time, as much material as that procured by older methods in a century, and from them could soon be compiled a valuable literature. Though these reports benefit us only indirectly, and to the extent that we are identified with the introduction of the drug or its sale, we offer to the hospitals, gratuitously, drugs for this test, and we do not even request that our names shall be used in the journals in connection with the work.

And, finally, it is to be hoped that the medical profession will give us credit for the integrity of our motives in the introduction of new remedies from the platform on which we stand, and because of the methods which we have adopted.

'Parke, Davis & Co., Manufacturing Chemists, Detroit, Michigan.'"

Color Blindness.—The Legislature of Massachusetts has enacted the following: "No railroad company shall employ or keep in its employment any person in a position which requires him to distinguish form or color signals, unless such person within two years next preceding has been examined for color blindness or other defective sight, by some competent person employed and paid by the railroad company, and has received a certificate that he is not disqualified for such position by color blindness or other defective sight. Every railroad company shall require such employé to be re-examined at least once within every two years, at the expense of the railroad company." The penalty prescribed for each violation of the enactment is fixed at $100.

Impotency—Nocturnal Emissions —Dr. Geo. Weaver, writing to the *Medical Brief*, April 7th, 1880, says: "I am charmed with the effects of celerina (Richardson, St. Louis) in nervous and sexual debility. It is the most efficient nerve tonic in the materia medica. I have treated several cases of impotency, that had sorely tried my patience, with complete success under the use of celerina, in teaspoonful doses, four times a day. I can say from experience, that the following combination will give perfect satisfaction in the treatment of nocturnal emissions:

℞. Celerina..... ℥iij
Bromidia..... ℥j

M. Sig.: One teaspoonful three times a day in water or syrup.

This will stop the emissions, strengthen the sexual organs, and build up the nervous system at the same time.

Book Notices, &c.

Diseases of Children. By WM. HENRY DAY, M. D., Physician to the Samaritan Hospital for Women and Children, etc. Second Edition. Rewritten and much Enlarged. Philadelphia: Presley Blakiston. 1881. 8vo. Pp. 752. Leather, $6; cloth, $5. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is a truly practical and systematic work, designed for practitioners and students. The author has recorded his clinical experience rather than devoted himself to the discussion of theoretical matters. We rise from an examination of the book favorably impressed as to the accuracy of

its descriptions and the practicability of its teachings. While it is not thoroughly American, it is yet right next in value to Dr. J. Lewis Smith's great book on *Diseases of Children*; and, indeed, to the careful student of medicine and the accomplished practitioner, the work before us must form one of the books of consultation which every doctor ought to have. Very few subjects usually treated of in books limiting their scope to diseases of children have escaped the notice of the author. Cholera infantum, which by some English authors is not discussed, receives consideration in this work, recording the practical experience in part of Dr. Day—thus showing, with the testimony of the illustrious West, that what is known in America as "the summer complaint of children" is met with in practice in London. Dr. Day holds to the view of the distinct difference of diphtheria and croup; and on pages 326–328 summarizes the differential diagnosis in a manner which must carry conviction. For the benefit of those fond of having formulæ already suggested to their hands, we may state that not only are copious foot-notes given under the several heads of "treatment," containing approved prescriptions, but an appendix of sixteen pages is added, filled alone with formulæ, which very materially aids the "ready prescriber." As a whole, the book is an excellent one, and will be of great service to any practitioner who has it as a constant reference work for clinical purposes.

Syphilis and Marriage. Lectures delivered at the St. Louis Hospital, Paris. By ALFRED FOURNIER, Professeur a la Faculté de Médecine de Paris, etc. Translated by P. ALBERT MORROW, M. D., Physician to the Skin and Venereal Department, New York Dispensary, etc. New York: D. Appleton & Co. 1881. 8vo. 251 pp. Price, $2. (For sale by Carlton McCarthy, Richmond.)

There was room for this book, and M. Fournier has well filled it. M. Fournier is an authority on any question that he discusses. Owing not only to the medical, but social questions growing out of the disease, it was well that the author has had so large an experience. In his lectures, M. Fournier gives prominence to the moral obligation upon the physician as regards public prophylaxis, and formulates a system of rules for deciding the various social problems which may arise. His style is clear and perspicuous. We have rarely read a work that so fully disclosed the painstaking investigation, and yet there is a charming literary pleasure in reading the lectures so admirably translated by Dr. Morrow. A French reviewer (*Lyon Médicale*) says of the

work, and we concur in the opinions expressed: "Written with a perfect fairness, with a superior ability, and in a style which, without aiming at effect, engages, interests, persuades, this work is one of those which ought to be immediately placed in the hands of every physician who desires not only to cure his patients, but to understand and fulfill his duty as an honest man." We would add, that the lectures might well be placed in the way of many young men who contemplate marriage.

A Guide to the Clinical Examination of Patients and the Diagnosis of Disease. By RICHARD HAGAN, M. D., Privatdocent to the University of Leipzig. Translated from the Second Revised and Enlarged Edition by G. E. GRAMM, M. D. Bœricke & Tafel: New York and Philadelphia. 1881. 12mo. Pp. 223. (From New York Publishers.)

We wish we could give this book as flattering a notice as it has been our pleasant duty to give to certain other books noticed this month. It is not so much that we have anything to say against the contents, as it is that what is said is almost altogether elementary in character. Scarcely an attempt is made at differential diagnosis, and hardly as much is said of the diseases spoken of as one finds in those pocket editions of books on diagnosis and treatment which are now being annually published as companions to several physicians' visiting lists. To quote from the Preface: "It is obvious that this *Guide* is not intended to supersede the larger works on special pathology and therapeutics, * * * * but rather to offer an inducement to the earnest perusal of them." This much this *Guide* may accomplish. It is neatly issued by the publishers.

Manual on Diseases of the Eye and Ear. By W. F. WITTENDORF, M. D., Surgeon to New York Eye and Ear Infirmary; Ophthalmic Surgeon to Bellevue Hospital Out-Door Department, etc. Fully Illustrated with Colored Lithographs and Wood cuts. New York: G. P. Putnam's Sons. 1881. 8vo. Pp. 445. (For sale by Messrs. West, Johnston & Co., Richmond.)

This book is elementary in many particulars, and is not intended to substitute any of the more extensive authoritative works on the subjects of which it treats But while it makes no pretension to being an exhaustive or a classic work for the duties of the specialist in eye and ear diseases, it is nevertheless practical in all its teachings and useful to the general run of practitioners. The arrangement of the subjects discussed in each department is for the most part an-

atomical from the outer surfaces to the deeper structures, whether of the eye or ear. The descriptions of diseases are mostly derived from clinical observation; the points of diagnosis are compiled from the most worthy authorities, and the plans of treatment devised have the support of the more eminent and successful practitioners. The ten pages of colored lithographic plates are material aids to an appreciation of the appearance of the diseases described. We are of the opinion that this book will have a wide range of usefulness in practice—especially with those physicians who profess to know but little about eye and ear diseases, who do not design becoming proficients in these subjects, but who simply wish to recognize and to treat the ordinary run of ophthalmic and aural troubles as met with in a general practice.

Hernia: Strangulated and Reducible, with Cure by Subcutaneous Injections, together with Suggested and Improved Methods for Kelotomy. Also an Appendix, giving a Short Account of Various New Surgical Instruments. By JOSEPH H. WARREN, M. D., Boston, Mass. With Illustrations. Boston; Charles N. Thomas. London; Sampson Low, Marston, Searle and Rivington. 1881. 8vo. Pp. 280. (From Publishers.)

This book gives a statement of a new plan of treating hernia that we have not as yet had occasion to use ourselves, nor see used, as we have for some years been advocates of Dowell's operation, which has been much more successful as to health and cure than Wood's or other operations, which, to this late day, are still recommended in text-books. Such a continuous record in the standard surgical works shows that the authors but seldom collect anything from the *current* literature of the day, but depend mostly upon the records of their predecessors who publish *books* of a few hundred copies' circulation. There are some few exceptions; but those who form the exceptions are those who are, *years* afterwards, quoted as making the advances. Dowell's operation, published five or six years ago, for instance, is simple enough, and the "radical cure" is far more sure than any of the recommendations contained in any of the recent text-books, unless we except Agnew's Surgery. And although Warren's plan, suggested by Dr. Heaton, has been before the public—an easier method than Dowell's, and one as equally safe, with plenty of authoritative evidence to show its value—for three or four years, still we find no allusion in any of the foreign works to either of the two methods suggested above. We also notice, with regret, that an adverse

criticism was passed upon certain of Dr. Warren's new modifications of instruments at the recent session of the American Medical Association in this city by gentlemen of eminence who either had never used them, or else had never seen them until they entered the Section Hall—notwithstanding nothing but favorable reports had come formerly from surgeons who had used them. This shows a lack of interest in things novel or new. All such suggestions as have been made by Dr. Warren, with his remarkable results, should be carefully examined, and no one should speak adversely until he has had time to examine closely into the truth of the reports and the feasibility of the plan.

Dr. Warren's idea is to inject hypodermically into the hernial ring a preparation of white-oak bark, or other vegetable astringent; and he claims from such practice an almost curative result—a claim which he has a right to make, supported as he is by *many* ordinary practitioners.

Food for the Invalid: The Convalescent, the Dyspeptic, and the Gouty. By J. MILNER FOTHERGILL, M. D., Edinburgh, F. R. C. P., London, and HORATIO C. WOOD, M. D., Professor Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System in University of Pennsylvania. New York: Macmillan & Co. 1880. 12mo. Pp. 157. Cloth; Price, $1. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is one of the few books edited by a European and an American medical authority of distinguished eminence. It treats of a subject of great importance to the sick, and of one regarding which the ordinary run of practitioners are unfortunately ignorant—not so much that doctors do not know the *general* class of invalid food to prescribe, but most of them are totally ignorant of the composition and modes of preparing certain diets. Thus it happens that one doctor tells his patient to take such and such a diet, while his consultant brother practitioner advises that the patient should by no means touch those dishes. Either the one or the other of the two is mistaken as to the exact nature of the meals to be prepared. And a close investigation of the causes of difference in the diet treatment or the suggestions regarding diet arise from the fact that either one or the other of the doctors is not properly informed, or else that both doctors were ignorant of what ought to be given.

We have examined this book quite closely. The *general* remarks in the "Introduction," covering some twenty-eight pages, by Dr. Fothergill, are very valuable. The more exact

formulæ of food to be prescribed, by Dr. Wood, are also very serviceable, and it would well repay every practitioner to study and remember the teachings of this little monograph: "By simply tickling with a lead pencil such receipts as may be deemed suitable for the individual case, the doctor can, in a moment, provide a full dietary for his patient."

Lectures on Diseases of the Nervous System, Especially in Women. By S. WEIR MITCHELL, M. D., Physician to Infirmary for Diseases of the Nervous System, Philadelphia, etc. With five Plates. Philadelphia: Henry C. Lea's Son & Co. 1881. 12mo. Pp. 238. (For sale by Messrs. West, Johnston & Co., Richmond.

These "lectures" were prepared by an author now eminent as a neurologist throughout the world, as one who has contributed much to the recent advances made in this special department of medical study. We find the records herein made to be characterized by the same cautions steps of advance as mark his former publications. The book is not an exhaustive one as to the range of subjects discussed, but deals chiefly with some of the rarer maladies or forms of maladies of women. Several hitherto undescribed forms of nervous affections are for the first time recorded; although such diseases have been observed in ordinary practice. These lectures, therefore, form a very important supplement to the standard exhaustive treatises on nervous diseases. Dr. Mitchell's lectures on hysterical affections, chronic diseases, disorders of sleep, etc., are especially interesting and practical; and his results in treatment of obstinate cases of nervous exhaustion and hysteria by seclusion, rest, massage, electricity and full feeding are remarkable, and the plan should be more generally adopted. The book is commended without reserve to the study of every physician in practice.

Hydrophobia. By HORATIO R. BIGELOW, M. D. Philadelphia: D. G. Bointon. 1881. 12mo. Pp. 154. Cloth; price, $1. (From Publisher.)

Dr. Bigelow's monograph is well timed. The bibliography of hydrophia is so extensive that at this day the practitioner needs, in a compact form, the experience of the profession. The literature on the subject is overwhelming, and the busy physician has little time to "keep up" with what is written. It, therefore, seems to us that Dr. Bigelow has done a valuable service in collating the experiences of the profession on the subject and clearly stating the same, and in giving his own most valuable conclusions. The work, though brief, is an encyclopœdia on the subject.

Dyspepsia: How to Avoid It. By JOSEPH F. EDWARDS, M. D., Author of "How a Person Threatened or Afflicted with Bright's Disease Ought to Live," etc. Philadelphia: Presley Blakiston. 1881. 16mo. Pp. 87. Cloth. Price 75 cents. (For sale by Messrs. West, Johnston & Co., Richmond, Va.)

This is a really useful, popular medical book; that is to say, it is a book that contains a great deal of practical medical or hygienic information which should be given the public—both for the purpose of preventing and curing the various forms of dyspepsia. While it is not advertised for such a specific purpose, still it is one of the few books that may be safely given to a dyspeptic patient to read, since all dyspeptics—unless they have something more valuable to read—are apt to send all over the country in answer to every quackish advertisement that may come under their notice in reading newspapers, especially if the advertisement occur in some religious paper. The little monograph before us is a book that will give instruction to the patient and rid the practitioner of hours and weeks even of relief from the constantly repeated inquiries of many a dyspeptic patient—one who, four times in five, pays nothing to the doctor for his frequent consultations.

Mr. Perkins' Daughter. By the MARCHIONESS CLARA LANZA. New York; G. P. Putnam's Sons. 1881. 12mo. Pp. 535.

Dr. W. A. Hammond's daughter, the authoress, has, with perhaps dramatic propriety, in the above named novel presented an interesting case of "double consciousness, or Periodical Amnesia," that will be read with much interest by the profession as well as the laity.

Introduction to Pathology and Morbid Anatomy. By T. HENRY GREEN, M. D., London, Lecturer on Pathology and Morbid Anatomy at Charing Cross Hospital Medical School, etc. Fourth American, from the Fifth Revised and Enlarged English Edition, with 138 fine engravings. Philadelphia: Henry C. Lea's Son & Co. 1881. 8vo. Pp. 347. (For sale by Messrs. West, Johnston & Co., Richmond.)

It must be conceded that American practitioners, as a class, are not proficient in pathological anatomy. In order to accomplish the end for which they are called to the sick, they are too content with that which is empirical in practice, and too contracted in general education. To become an accomplished physician, in the proper sense of the term, one should be well posted as to changes in tissues and secretions and excretions occurring in diseased subjects. He should

not only be the mechanic, but should also occupy toward his profession something of the character of the educated railroad engineer who studies the country, knows the composition of the soil, plans the route, determines the grades, and projects the exact curves by which the road should be run by the workmen. We cannot say exactly that the present volume of Dr. Green is essential to the "busy practitioner," in the ordinary use of the words "busy practitioner," because, according to usual acceptation, with illustrious exceptions, this term is too often applied to the mere routinist, who would rather devote his entire attention to compendia of diagnosis in order that he might the more safely refer to his book of formulæ so that he might prescribe according to the name of the disease or symptom. But if that practioner has an ambition to excel, or a desire to advance, in truth, the science of medicine, he should be familiar with "pathological and morbid anatomy" as described in the book now on our table.

We avail ourselves of the opportunity presented by noticing the work whose title is given above to make the remarks we have, because the book we now commend serves the purpose admirably. It embraces a description, with about 140 wood cuts, which have been drawn from microscopical preparations of most of the every-day diseases met with in the ordinary rounds of a physician, and whoever will, may obtain from this book much valuable information.

Editorial.

Medical College of Virginia—Forty-Third Annual Session.—The closing exercises of this institution at Mozart Hall on Thursday night, June 16th, went off with great *éclat*.

The orator, J. N. Dunlop, Esq., delivered an address of exceptional brilliancy and power, filled with classic allusions and original research

The Dean, Professor McCaw, conferred the Degree of Doctor of Medicine on the following gentlemen: Romalin Armfield, South Carolina; T. D. Bennett, Richmond; Chas. Barrett, Wytheville; Charles Blanton, Cumberland county, Va.; R. B. Coleman, Richmond; J. H. Latane, King and Queen; Ed. McCarthy, Jr., Richmond; J. E. Tarter, Wytheville; J. Cook Lane, Essex county, Va.; Lewis Wheat, Winchester; Wm. T. Oppenheimer, Richmond; and the Degree in Pharmacy on Wm. T. Henning, of Richmond.

The Dean announced the determination of the Faculty to continue the present system of instruction, long terms and a graded course, with preliminary, intermediate, and final examinations. The experience of the past session has shown that (giving only four lectures a day) every Professor was able to complete his course in thirty-two weeks. Hence the Faculty propose to reduce the term from nine months to *seven and a half*, making the period of study not less than fifteen months. We heartily endorse this action on the part of the College, and we can advise students desiring a complete, sound professional education, to take the advantages offered by the Medical College of Virginia.

Pennsylvania Pharmaceutical Association.—The fourth annual meeting of the Pennsylvania Pharmaceutical Association was held June 15th, 1881, at Williamsport, Pa. The Association was welcomed by the Mayor of the city, and was handsomely entertained. Among the exhibitors who made specially excellent displays, we mention Messrs. C. T. White & Co., of New York, represented by W. N. Purdon, Esq., who, by the way, in Richmond made many friends during the session of the American Medical Association; Messrs. W. R. Warner & Co., of Philadelphia; Messrs. John Wyeth & Bro., of Philadelphia, and others. Messrs. J. W. Randolph & English, of Richmond, exhibited their manufactures of druggists paper boxes, and were highly commended.

Soluble Pills.—Messrs. Sharp & Dohme, of Baltimore, Md., have acquired a just celebrity for their carefulness in the preparation of their pharmaceutical and chemical products. For years we have used in our personal practice many of the preparations of this house, the formulæ of which are given in all cases in plain terms; and we can safely say that in no instance have we failed to find what we looked for. This house has long been favorably known to the profession, and it prepares a full line of reliable pharmaceutical products chemicals, etc. We invite special attention to their soluble sugar and gelatine coated pills, etc.

Hall's Health Syringe.—We have satisfactorily tested the Hall's Health Syringe in our practice, and it has fully met our demands, and in every instance given satisfaction to our patients. We recommend it as the superior of any other syringe of which we are informed.

The "Hammond Prize."—The American Neurological Association offers a prize of five hundred dollars, to be known as the "William A. Hammond Prize," and to be awarded at the meeting in June, 1882, to the author of the best essay on the *Functions of the Thalamus Optici in Man*. The conditions under which this prize is to be awarded are as follows:

1. The prize is open to competitors of all nationalities.

2. The essays are to be based upon original observations and experiments on man and the lower animals.

3. The competing essays must be written in the English, French or German language: if in the last, the manuscript is to be in the Italian handwriting.

4 Essays are to be sent (postage prepaid) to the Secretary of the Prize Committee, Dr. E. C. Seguin, 41 West 20th Street, New York city, on or before February 1st, 1882; each essay to be marked by a distinctive device or motto, and accompanied by a sealed envelope bearing the same device or motto, and containing the author's visiting card.

5. The successful essay will be the property of the Association, which will assume the care of its publication.

6. Any intimation tending to reveal the authorship of any of the essays submitted, whether directly or indirectly conveyed to the committee or to any member thereof, shall exclude the essay from competition.

7. The award of the prize will be announced by the undersigned committee; and will be publicly declared by the President of the Association at the meeting in June, 1882.

8. The amount of the prize will be given to the successful competitor in gold coin of the United States, or, if he prefer it, in the shape of a gold medal bearing a suitable device and inscription.

Committee: Drs. F. T. Miles, Baltimore; J. S. Jewell, Chicago, and E. C. Seguin, New York.

Iowa State Medical Society.—At the twenty-ninth annual meeting of the Iowa State Medical Society, held at Dubuque, May 26–7, 1881, the following officers were elected: President, T. J. Caldwell, Adel; Vice-Presidents, D. Scofield, Washington, and M. H. Waples, Dubuque; Secretary, J. F. Kennedy, Des Moines; Assistant Secretary, L. C. Swift, Des Moines; Treasurer, G. R. Skinner, Cedar Rapids. The following are chairmen of standing committees: *Arrangements*—J. Williamson, Ottumwa; *Publication*—J. F. Kennedy, Des Moines; *Ethics*—S. B. Chase, Osage; *Necrology*—A. W. McClure, Mt. Pleasant; *Microscopy*—J. J. M. Anger,

Ft. Madison. Present number of members, 328. No transactions will be published this year. Next meeting at Des Moines, last Wednesday in January, 1882. Secretaries of local societies are respectfully requested to notify the Secretary of any change of officers and the number of members in their respective societies.

Messrs. Henry C. Lea's Son & Co., will issue at an early day a new edition of Holmes' System of Surgery, *Americanized*. This work has already won such confidence in the former or English editions, that now it will have a far higher value in the revised form. In the list of American editors we note the names of many of the most distinguished members of the profession on this side of the Atlantic. We look forward with great interest to the issue of this great work.

Dr. J. M. Toner, of Washington, D. C., will sail for Europe on July 14th to attend, as a delegate from the American Medical Association, the International Medical Congress which is to meet in London, August 2nd. He will also attend the session of the British Medical Association, which meets on the Isle of Wight immediately after adjournment of the Medical Congress.

Maltine, as prepared by Messrs. Reed & Carnrick, has the very highest endorsement of the profession. Its value in wasting diseases, such as pulmonary affections, is everywhere recognized. We have used maltine with the best results, and can confidently commend it to the profession.

Lactopeptine, as a remedy in the treatment of cholera infantum and the usual summer diseases of children, is most valuable, certainly as an adjuvant, it is nearly always beneficial. The profession should not overlook this preparation, especially at this season.

Celerina in Mental Depression and the Opium Habit.—I have used Celerina in two cases of mental depression, caused by sexual exhaustion, and have found the results *very satisfactory*. I can give the *same favorable report* in two cases of the "opium habit." CHARLES ZOLLER, M. D.
Litchfield, Ill.

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Original Communications.

ART. I.—**Ophthalmology for General Practitioners.** By F. TIPTON, M. D., Selma, Ala.

Whilst passing through the usual course at the Eye and Ear Infirmaries, the writer was greatly impressed with the evident lack of familiarity concerning even the simpler and most frequent forms of eye troubles manifested by general practitioners casually visiting these institutions—gentlemen, too, of unquestioned ability in other departments of medicine, and from whom one would be led to expect more information even in this rather special department. It is not to be expected that every practitioner should be an accomplished ophthalmologist; indeed, where skilled aid can be obtained, it would be far better to relegate all cases to the specialist; but often, particularly in country districts, no such resources are available, and an eye may perish often, which, under enlightened treatment, might have been restored to usefulness. There are many diseases of, and accidents to the eye, in which delay is simply a death warrant to vision—cases, too, perhaps, in which the resources of the

surgeon can be beautifully illustrated, and often cases which any practitioner of fair attainments might successfully conduct to a creditable issue. It is to the general practitioner that I purpose particularly to address this paper—to the men who, of necessity, must battle with disease of every shape in their professional pursuits, and more particularly to that class for whom I entertain the most lively and heartfelt respect and admiration—our hard-worked country physicians. If, therefore, this paper serve in any measure to lighten the task or to increase the usefulness of any one to whom it may chance to come, then its object will have been accomplished.

No attempt will be made to produce either an original or exhaustive article. The writer wishes to be rather suggestive than exhaustive, to point out and to teach the remedy for the common errors in the practice of the average physician in the special department of which this paper treats, and to arrange the whole *en masse* for ready reference, in order that no one need err if only moderate caution be exercised.

In the *Maryland Medical Journal* of December, 1880, Dr. Theobald, of Baltimore, has an article on the errors in the diagnosis of eye diseases commonly made by general practitioners, that covers almost the precise ground which I purpose to go over in this paper, and were it not that he speaks exclusively of diagnosis and not of treatment, and omits points which I desire to direct attention to, this article would be superfluous.. To those who have copies of this journal, I most heartily recommend a perusal of this excellent and sensible article; it expresses a desire which every honest student of medicine feels who witnesses from day to day the sad consequences of neglect or misdirected treatment. No one can be so fully alive to the urgent necessity of an early disagnosis and prompt treatment in eye diseases as one who visits constantly the ophthalmic infirmaries of the large cities, and witnesses there the pitiable sights wrought by previous neglect, and, sad to say, often ill-advised medication. One of the most frequent mistakes with physicians is to treat every form of conjunctival hyperæmia with astringents; and often without investigation the patient is sent away with a lotion

of zinc, or, worse still, of lead, for a *phlyctenular conjunctivitis* or an iritis where a very different kind of treatment is needed, and where astringents, particularly lead, is positively hurtful. A little care is needed, and only a very little, to distinguish simple from phlyctenular or strumous conjunctivitis. Thus in phlyctenular inflammation, the eyes weep more, light is painful, the eye improves toward evening as the light fades. The little phlyctens or ulcers can be seen scattered over the conjunctiva—perhaps on the corners—forming little red congested areas, differing from the uniform diffuse redness of catarrhal conjunctivitis. This irregular injection is quite characteristic, and should be looked for in all cases in children.

The disease is almost always confined to childhood, especially when occurring for the first time. Catarrhal conjunctivitis, on the contrary, is worse at night; the redness is uniform, the cornea is seldom affected, there is little pain, no photophobia, less lachrymation than in the strumous type, and occurs most commonly in adults.

Phlyctenular conjunctivitis should be treated by the instillation of a one to two grain solution of atropia, three times daily—the strength varying with the age of the child. The youngest can bear the one-grain solution if used with care, and the physician can always use the four-grain solution for his own convenience, without danger, if he simply lets one drop fall into the eye, and turn the head so that the tears flow away from the nasal duct. Every other day the physician should dust into the eye some *precipitated* calomel (not the ordinary drugs of the shops), with a camel's hair brush, directing the mother to use the atropine three times daily; the dilation of the pupil will show how faithfully or negligently she follows his instructions.

A capital point in these cases is this: If there be much photophobia and ciliary congestion, first use the atropine to reduce this condition somewhat before resorting to calomel; then begin with the mercurial. If, on the contrary, the *cunjunctiva* be most affected, and the *cornea* but little, as evidenced by lack of ciliary engorgement and photophobia, then use the calomel freely from the first. Of course this

local treatment must be supplemented by proper general measures, such as cod liver oil, syrup of the iodide of iron, etc.

A capital lotion in mild forms of simple conjunctivitis is that of Dr. Williams, of Boston, viz.: Acidi boraci, gr. v; aquæ camphoræ, ℥j; Mix. This with the following lotion will relieve any mild case of conjunctivitis: ℞. Spt. lavend. simp.; spt. vini gallici, ā ā ℥ss; spt. rosemary, ℥ij; Mix. The first lotion is to be dropped into the eye night and morning; the second is to be used as a mild evaporating application to the outside of the lids. Care should be taken to secure the simple spt. of lavender, as the aromatic spt. will not answer. In severer cases the zinc lotions can be used—two grains to the ounce of distilled water, or alum, five grains to the ounce of water. But I much prefer, after pus begins to form, to use nitrate of silver, five grains to the ounce, brushing the lids rapidly with a camel's-hair brush wet with this solution, afterwards quickly brushing away the superfluous fluid with the same brush rapidly dipped in plain water and drawn in the same way across the partially everted lids. This should be repeated every other day, or every fourth or fifth day, according to the severity or necessities of the case.

This leads me to the treatment of *gonorrhœal ophthalmia* and the *purulent ophthalmia of infants*—diseases which any one may be compelled to treat, and diseases, too, which require the utmost boldness and decision for successful management. No time can be lost. In the case of infants, see that the eye is cleansed *every hour* in bad cases, with warm water and a piece of soft cloth; evert the lids by pressing up the upper with the first finger of the left hand, and depressing the lower with the second finger. Then rapidly wipe away with the moistened rag all secretion, and rapidly brush over after this cleansing a two-grain solution of nitrate of silver in the manner above stated. This is to be used in urgent cases every three hours, until the case begins to yield; in mild cases, once daily. Then the milder lotions can be used, viz.: Acidi boracici, gr. ij-iij to ounce of camphor-water. If this treatment be carried out faithfully and properly, no case of this kind need ever be lost.

In the gonorrhœal cases, the silver solution, five grains to

the ounce, should be used *once* daily, and the eye kept the remainder of the time covered with ice-water compresses. This is imperative in these cases and must not be neglected. In both diseases the bowels should be kept freely open, and the ordinary sedatives (in case of constitutional disturbance) appropriate to the condition should be given. These are the sheet anchors, nitrate of silver and ice compresses, and I might here say of the former that the proper time to apply is always *after the discharge of pus begins, never before, in any conjunctival inflammation.* The use of more than five grains to the ounce is never required—just as powerful an impression being available with this strength as with the more concentrated solutions, the whole question hinging on the duration and thoroughness with which the agent is applied. The frequency of these applications may be regulated by the copiousness of the discharge, which always lessens under their use, and only requires subsequent applications when it begins to flow freely again. More than once in twenty-four hours is seldom ever required.

For the efficiency and promptness of this treatment, the writer can vouch from an ample clinical experience. Where only one eye is affected, the sound eye should be closed with linen compresses covered with and cemented to the orbit with collodian—space being left in the outer and lower angle for ventilation.

I have made no mention of diagnosis in these cases, since they could scarcely be misinterpreted by even the most superficial inspection.

Iritis, with excessive conjunctival injection is, often mistaken for conjunctivitis, and the condition of the iris overlooked in the effort to subdue the conjunctival hyperæmia, until extensive adhesions form and the integrity of the eye is permanently destroyed. *Iritis must be recognized at once, and throttled in its beginning*, if we hope to stave off the inevitable adhesions and the train of evils that constantly menace the neglected organ. If the following rules be considered in all doubtful cases, mistakes of this kind are impossible: Always examine the action of the pupils. Let the patient confront a bright light, and interpose the hand be-

tween the eye and the light, if the pupil responds naturally, as compared with the other or any healthy eye; if there be no pain, no dimness of vision, no great ciliary injection, then exclude iritis. If this test proves unsatisfactory, then drop into the eye a drop or two of a four-grain solution of atropia, which will settle beyond question any further doubt. If the pupil dilate within twenty minutes and show a perfectly circular contour, then you may safely assure your patient that the iris is unaffected.

Remember, then, that the signs of iritis are four: 1st. Discoloration of the iris, often slight at first; 2d. Ciliary injection; 3d. Dimness of vision and sluggish pupil; 4th. Pain; all, or most of which, are absent in conjunctivitis. Another capital point is to notice the maximum of congestion; if in the fold of the conjunctiva, think of conjunctivitis; if surrounding the cornea (ciliary injection), rather look for iritis or inflammation or ulceration of the cornea or ciliary body (cyclitis)—all of which call loudly for atropia, the remedy *par excellence* for diseases in this locality. In a broad, general sense, atropine is indicated in all conditions involving congestion of the blood vessels forming the ciliary zone, and any injection here should always suggest a thorough scrutiny of the iris and cornea.

Another safe rule in ocular therapeutics, is when a question of doubt between the use of astringents and atropine arises, to give the latter. Eliminating the rare cases where atropine causes a prolapse of the iris through a perforating ulcer of the margin of the cornea, and an occasional irritation of the conjunctiva, and, perhaps, in some cases of glaucoma, I know of no condition of the eye in which atropine can do harm, and there is certainly no other agent so universally useful.

The treatment of iritis is preëminently by atropia. *Secure full dilatation of the pupil at once*, if possible, by instillation of the four-grain solution every few hours; once secured, maintain dilatation by the two-grain or one-grain solution used thrice daily, and supplement by hot fomentations to the closed lids, calomel purges and aconite where the fever runs high.

Before leaving this subject, I would suggest that, in all cases of sharp fever, accompanied by violent pains in the head and eyes, the iris be examined with reference to iritis, and the signs of acute glaucoma (to be mentioned further on) be looked for.

Many cases of *inflammation of the lids* are brought about and maintained by errors of refraction, which can be readily corrected by properly fitted glasses, and physicians should be on the watch for this condition. All cases of obstinate conjunctivitis, inflammation of the lids, and even irritation and gritty sensations in the eyes after reading especially, or at near work, should direct attention to this condition, and the patient should be sent to the oculist to have his vision tested. There are few remedies within the scope of medical men which afford the satisfaction to both patient and physician that this particular business of fitting spectacles offers, and one must see to appreciate the great and lasting relief afforded by this method of treatment. A patient once said to the writer, after being fitted for a difficult astigmatism, that had defied the spectacle vendors for twenty-five years, that he felt like one born again, and developed an affectionate gratitude that spoke louder than words, his great and lasting relief. Let me, then, reiterate, whenever a patient comes to you complaining of a gritty sensation in the eyes, or pain after reading, or near work, or with an obstinate inflammation of the lids, let him have the benefit of special advice, for these are the signs that glasses are required to aid the overworked muscles of accommodation.

The possibility of stricture in the nasal duct, should always be borne in mind, and in obscure cases of excessive lachrymation and chronic inflammation of the inner angles of the conjunctiva, the finger should be pressed over the course of the lachrymal sac to ascertain the patency of this canal. If there be any obstruction, this manipulation will cause an abundant discharge of pus or tears which cannot be expressed in ordinary conditions of health.

Every practitioner should be familiar with the symptoms of *acute glaucoma*, for upon his recognition of this distinctive malady depends his ability to rescue vision from certain de-

struction. The text-books tell us of many cases of this affection which were allowed to run on to utter destruction of the eye, under the convenient diagnosis of bilious attacks, neuralgia of the eye, and other familiar but fatal names. As before stated, whenever called to a case of violent headache, ocular pains and fever, no harm will be done by keeping this affection in view, and a single eye, saved, well repays one from many interrogations, which, perhaps, are often unnecessary.

The *signs of acute glaucoma* are: 1st. Pain, more or less violent; 2d. Dimness of vision; 3d. Dilatation of the pupil; 4th. Shallowing of the anterior chamber; 5th. Steamy cornea and increased hardness of the eye on palpation. This is generally accompanied by great congestion and often swelling of the lids, and often by fever and vomiting. The tension of the globe of the eye is quite characteristic, and can be readily appreciated by comparing with the fellow eye, being often of strong hardness, and forms the most constant and reliable symptom of this dangerous malady. It should always be looked for, and when accompanied by the foregoing symptoms, is conclusive. The patient should, at once, be treated freely with purges, leeches to the temples; and if the surgeon declines to risk iridectomy, which should be done preferably in all cases, let him instil at once a four-grain solution of eserine into the eye, to be repeated according to the degree of pain and tension; then cover the eye with hot compresses, and secure the aid of some surgeon who can perform the operation of iridectomy or sclerotomy—operations which, under such circumstances, might be undertaken by any one possessing steadiness of hand. The details of the operation can be found in any work on ophthalmic surgery. Instead of using the iridectomy knife, Van Graefe's cataract knife may be used for the corneal incision, which should be smaller and a little posterior to the ordinary incision for cataract. The iris should be removed to the full extent of the incision, if possible, for upon this greatly depends the completeness and benefit of the operation.

Chronic glaucoma is often confounded with senile cataract on account of the greenish pupilary reflex; twice recently I

have seen mistakes of this kind, but a little care will prevent any mistakes of this nature. Make it a rule to examine the *tension* in all cases of doubt, and get the history of the case. There is nearly always a history of pain in glaucoma, none in cataract, and there is also more or less conjunctival hyperæmia in the former; none in the latter. When, therefore, you have increase of tension with impaired vision and pain in the eye, the probabilities are strongly for glaucoma. These cases should be sent to the oculist, and where this is not practicable, eserine should be tried, a few drops into the eye several times daily (two grains to ounce of water).

I make no mention of the use of the opthalmoscope in these cases as an aid to diagnosis, taking for granted that such as have had special instruction in the use of this instrument, would scarcely neglect it, whilst to those who have not received such instruction, it must always be an irksome and unsatisfactory instrument, unless their clinical material is sufficiently abundant to give them constant exercise in this method of examination.

I next desire to call attention to the very important subject of *impaction of foreign bodies*, one upon which every physician should be thoroughly informed, inasmuch as they are constantly called upon to treat these cases, and upon their skill often depends the results to the vision and usefulness of the organ. Foreign bodies imbedded in the cornea are best removed by the spud; and time will be saved to the inexpert operator if he will use the speculum and fixation forceps in firmly adherent particles, thereby giving him complete control over the movements of the eye. Children should be chloroformed, and in some instances sensitive females may also require anæsthesia. When the body is firmly imbedded, it may become necessary to dig it out with a sharp instrument, but this should be generally avoided. When the body penetrates the cornea and reaches partly into the anterior chamber, more care must be taken, and often two needles required—one penetrating the cornea and steadying or pressing the particle outwards; the second employed in digging around and loosening the body from without. Bodies lodging in the anterior chamber must be removed at once by an

incision into the cornea, and a removal, if necessary of a part of the iris; where this body prolapses into the wound or when it receives the fragment into its tissue, this must be done at once or the eye will be surely destroyed by iritis, cyclitis, or perhaps inflammation of the entire organ; when the body lodges in the bloodless, nerveless tissue of the lens, no immediate operation is necessary, and paliative measures should be instituted. Instances are on record of foreign substances remaining in this locality for long periods, without inducing greater damage than that of opacity in the neighborhood of the body. This tolerance cannot be said of any other portion of the eye, however, and whenever the particle lodges elsewhere it must be either removed or the eye will perish. Especially is this true of the vitreous body. Whenever the intruding substance is within reach, attempts may be made to extract with delicate forceps, or with Gruening's magnet; but, failing in this, the eye should be removed at once as a prophylactic measure against sympathetic ophthalmia, of which we will now make a brief survey.

Dr. Carter says, in treating any case of injury to the eyeball, the first question to be asked one's self is: Does this menace the other eye with *sympathetic ophthalmia?* It must be remembered that a serious injury can never leave more than imperfect vision, and that sympathetic ophthalmia, although it can be prevented by enucleation, can seldom, if ever, be cured. When, therefore, there is any serious risk of its occurrence, it is improper to seek to save the damaged eye at the probable cost of the loss of the sound one; and the patient should be told from the first that his only safety is in an enucleation. But as sympathetic irritation nearly always precedes actual inflammation, an intelligent patient living within reach may be left to watch the course of events, after having been informed of the symptoms which usher in this affection, and instructed to report to the surgeon at once upon the slightest symptom of irritation, such as gritty sensations, weary or strained feelings, impairment of accommodation, etc. Again, wherever enucleation is unavoidable, then let it be done at once before inflammation sets in in the in-

jured eye. Such conditions are, rupture of the eye-ball and disorganization of its contents, puncture by coarse instruments, lacerated wounds of the ciliary region, foreign bodies in the eye.

Concerning sympathetic ophthalmia, by far the most important measures refer to prevention. Once instituted, little can be done to check its course. Therefore, it becomes the surgeon's duty to advise enucleation, in all eyes which are at once useless and liable to light up these destructive inflammations, such as all eyes blind from diseases of the anterior segment of the globe, especially if tender in the ciliary region. Nettleship says, "that any lost eye in which there are signs of past iritis, especially if blind, should be removed. When an eye presents symptoms demanding enucleation ordinarily, yet possesses some degree of sight, much judgment is required in pronouncing its fate. Perhaps in these cases if the ciliary tenderness be not too great, it is best to wait for signs of sympathetic irritation in the fellow eye—always keeping the eye under close surveillance, and, if possible, the patient in a darkened room. All such eyes should be closely watched, and when the peculiar ciliary sensitiveness, produced by pressure over the ciliary region through the closed lid (the patient being directed to look down), is quite marked, causing the patient to start suddenly on the slightest touch, then it is unsafe to defer the operation any longer. This symptom, then, must be constantly looked for, and when found, immediately attended to. The risk of the delay outweighs any usefulness that the eye may possess.

The operation of enucleation is not difficult, and can and should be performed by any physician who values the happiness of a fellow being. The details of the operation can be found in any book on ophthalmology. The importance of this subject cannot be over-estimated, and any physician should feel his attainments incomplete, unless he feel competent to decide upon and act in emergencies such as I have described. If this paper attract a more thorough attention to these subjects, if it in any measure instruct, or if it supply a want within the scope of general medical literature, then its object will be attained and the writer content.

ART. II.—**Testicular Tuberculosis.** By G. HALSTED BOYLAND, M. D., Baltimore, Md.

Testicular tuberculosis, so-called, practical experience proves to be a comparatively rare disease. *Post-mortem* examinations of tubercular patients often show tubercles in several organs of the body; but by tuberculosis of the testes in a strict sense, the writer has reference to those cases in which the testicle, and the testicle alone, is affected in its integrity, all other organs of the system remaining perfectly healthy, so far as could be ascertained by the most careful examination.

As in other organs, so also in the testes very different pathological changes are comprehended under the name tuberculosis; such changes, however, unite in the common result, that they give rise to the formation of cheesy matter sharply separated from the surrounding tissue. Since the metamorphosis of new cell growth upon this basis, notably also of pus corpuscles, has been more closely studied and described as tuberculosis, the expression tubercle has come to have two significations in so far as it is applied no longer to the new growth formerly recognized and designated as tubercle only, but also to the first mentioned metamorphosis of pus and other cells. We might say it is a question, in the first case, of a necessary tuberculization, conditioned by a general disturbance of nutrition (dyscrasia); in the second, on the other hand, a more accidental tuberculization. These general characteristics are just here of importance as regards testicular tuberculosis; for, according to them, may be distinguished the dyscrasia tubercle from that induced by other inflammations. The last is by far the more frequent, and therefore Vidal already asserted, and with right, "that most cases of tuberculosis of the testes are not true tubercle, as tubercles in the lungs are found so uncommonly seldom to exist at the same time."

With this, further, accords the fact that tuberculosis of the testicle is almost always developed from the epididymis, in which inflammatory processes appear much oftener than in the testicle proper. For this reason, the opinion is repeated

on all sides, that tubercle may form as a consequence of gonorrhœa, after contusion of the testes, etc.

Testicular tuberculosis in both of its forms is seldom observed before puberty; it has, of course, been found also in children five or six years of age, but these are exceptions. As far as personal experience goes, I have had but one case during the last ten years. The development follows, as a rule, quite gradually and without pain, so that the patient is first made aware of his malady by the changed form and size of the testicle. Upon outward pressure, the portions of the testicles still remaining healthy, appear more sensitive than the diseased. Most frequently, the primary seat of disease is in the head of the epididymis; from there out, the tubercle can spread on the one side to the testicle; on the other, upwards on to the vas deferens to the inguinal ring, or also farther to the semen bladder. Sometimes even the portion of the vas deferens lying in the pelvis remains free, whilst the semen bladder is nevertheless affected. In dyscrasia tuberculosis, as in many other dyscrasic diseases, both sides (testicles) are affected. After a longer or shorter time inflammation is set up around the tubercles, and thus begins their softening. The tuberculous cavern breaks open outwardly quicker when situated in the epididymis, because it has not then first to break through the albuginea, a fibrous skin, always offering long resistance to ulceration. Generally, the point of first breaking through is very soon narrowed to a fistulous ulcer; the same cavern breaks open at another place, and often at several. All these openings may cicatrize, but only after having emptied, to the great annoyance and unrest of the patient, during months or years, bad pus mixed with tuberculous strings and cheesy knots, resembling the contents of a cold abscess; but frequently they do not cicatrize at all. Nevertheless, it never comes to an exhaustive suppuration. If colliquative symptoms appear, their cause is invariably to be sought in disease of the lungs or other organs.

What to do in treating testicular tuberculosis, is very briefly told. If the tuberculosis must be traced to a general affection, the utmost attention, therapeutically, will be

given to it; in this case, local treatment would only be in place to remove especial burden or annoyance to the patient. The latter comes to the front when the tuberculosis is strictly a local malady. Then it is certainly reasonable to slit up fistulous passages, unite them with one another, and induce the emptying of tuberculous masses and closing of the caverns by cautery. When the affection has spread throughout the entire testicle, there being at the same time great inconvenience with suffering and the disease, from long standing, and at last becomes wearisome, castration is especially recommended, because the testicle is incapable of function; and the operation, particularly in these cases, can be done without difficulty or danger.

It is my practice to administer a tonic, such as iron, cod liver oil, hypophosphites, etc., (whether constitutional symptoms are present or not) both before and after the operation; if they are not present, the prophylactic action is very beneficial, and the best proof of their indication is the readiness of such patients to respond to their exhibition.

ART. III.—**Abdominal Section in the Treatment of Ulceration and Perforation of the Cæcum and Appendix Vermiformix.***

By WILLIAM A. BYRD, M. D., Quincy, Illinois.

The report that I have the honor to present to this Section to-day, is offered as an appendix to the paper that I read before your body in New York last summer. I will first show you a cæcum and vermiform appendix that I took from the body of Leon Vallet, who died in our city March 24th, 1881. The appendix has a gangrenous patch on each side about an inch and a half long by half an inch wide.

Through the centre of each patch is a ragged hole that will permit the passage of the little finger. He was taken sick the night of March 18th, with great pain in the umbilical region, and sent for an irregular practitioner, who treated him until the morning of the 23d, when, instead of improving, he was getting worse. He sent for Dr. M. F. Bassett, who found him cold, clammy, nearly pulseless, tympanitic,

*Substance of Remarks made in Section of Surgery, of American Medical Association, May 4th, 1881, held in Richmond, Va.

vomiting stercoraceous matter, and having extreme pain in the umbilical region. He diagnosed some form of abdominal obstruction, and told him he had but little hope for him; that it was a case that required the intervention of a surgeon, if anything would do him any good.

That evening the Doctor requested me to see the case for him. I found the case as described above, the tympanites being very great and the pain agonizing. As he had been given large doses of opium without much relief, I determined to use the aspirator. There was withdrawn two pints of thin, brown fluid, having a marked stercoraceous odor. This settled the diagnosis, proving it to be not only a case of obstruction but also one of perforation.

The man being evidently in a state of collapse, and it being nearly 11 o'clock at night, I did not advocate nor believe that an operation would do any good. At 3 o'clock in the morning he died.

On the 27th of March, I was called in counsel with Drs. Wm. M. and D. M. Landon, to see a patient near Adams, Illinois, who was suffering with obstruction of the bowels, having, by a strange coincidence, been seized the very same night that Vallet was. This case will, perhaps, be better described by Dr. D. M. Landon, whose letter I will now read:

"Mrs. Josiah Broyles, married, aged 39, mother of five children, family history good, so far as any predisposition to any of the diatheses is concerned. Several years ago she had Asiatic cholera—her first husband dying of an attack at the same time. Menstruation regular. Says her right side has been lame and sore ever since her attack of cholera. Has been obstinately constipated most of the time during her married life, and, judging from her irregularity to attend to the calls of nature, one would suppose this condition had been brought about by a paresis of the muscular coats of the bowels—which paresis was due to over distention from long retention of fæcal matter. On March 18th, 1881, she was seized with colicky pains in the bowels, in the region of the cæcum, which lasted nearly all day. March 19th, soreness in right side, but she felt so little inconvenience from it that she went to Quincy, a distance of twelve miles, in a spring wagon. When she returned, she was attacked with a violent colic, which lasted until she was relieved by morphia, hypodermically. Sunday evening, March 20th, temperature had ranged from 98½, Fah., to 101; pulse, 85 to 120. Before I was called she had taken a dose of antibilious physic, a quack nostrum of some kind, which was followed by copious

evacuations from the bowels. When I saw her she was suffering from the most violent tenesmus I ever witnessed. Said she felt just like she was going to be confined. Thinking there might be impaction of the bowel, we gave copious injections of warm water, which were retained, no benefit being derived from them. Symptoms of obstruction became more aggravated, with stercoraceous vomiting, pain, tenderness and induration over cæcal region. Slight elevation of temperature. Frequency of pulse slightly increased. Extreme thirst, which was due probably to the morphine. Loss of appetite. In a few days symptoms of suppuration, chilliness, and profuse sweating presented themselves. At this time, March 27th, Dr. William A Byrd, of Quincy, Illinois, was called in consultation. In the Doctor's opinion, there was inflammation and obstruction of the bowel at the cæcum, which should be relieved by abdominal section. The patient feeling somewhat easier, the operation was not then permitted, but the Doctor was re-called April 1st, when he made an exploratory aspiration, getting an ounce or two of pus. Abdominal section was commenced at 2 P. M. After working nearly an hour, tearing up old adhesions, which matted together several knuckles of bowel, the point of original disease was reached. The cæcum and appendix were one mass of disease, being inflamed and ulcerated throughout. The cæcum was perforated in three places, to the left and posteriorly. At one of the points of perforation the appendix was adherent to the cæcum, and was perforated at the site of adherence and also at the opposite side.

The perforations were evidently produced by the irritating action of some half-dozen hard concretions found in the abscess cavity. These were nearly as hard as stone, and were about the size and shape of plum seed. The perforations were all cut into one, making a single opening in the bowel instead of three, and the edges of the large opening were then stitched to the opening in the abdominal walls. The opening, as presented to the outside, was, when finished, about three inches in diameter. As there had been some of the contents of the bowel extravasated, an opening was left at the inner side of the incision, between the bowel and abdominal wound, large enough to admit the nozzle of a syringe to permit the washing out of the abdominal cavity, which was done every few hours during the treatment of the case, with a very weak solution of carbolic acid.

Strict attention was paid to cleanliness. Morphine was given as occasion required, hypodermically. Quinine and

easily-digested food were given and perfect quiet enjoined. The patient has been improving ever since the operation. Some suppuration yet, but no evidence whatever of inflammation. Rests well at night, appetite good, and, in my judgment, will be entirely well in a short time.

Very respectfully, DAVID M. LANDON, M. D.

Adams, Illinois, April 29th, 1881.

The above letter was received since my arrival in Richmond, and will give you as good an account of the operation as I could have done; in fact, better, as Dr. Landon is a very capable and observing physician, and had the case under observation from its inception.

For a long time I had the greatest dread of invading the peritoneal cavity, and would have thought that cases wherein there was not only an opening into that cavity, but also perforation of the bowel and extravasation, must of necessity be fatal, but I have now made abdominal section, opening also into the bowel four different times, all of the patients recovering from the trouble for which the operation was demanded.

I have now made twenty-two abdominal sections of all kinds. The first was a case of perityphilitic abscess, which I was called to treat in February, 1869. When I first saw the case I mistook it for one of hip-joint disease, but it afterwards developed over the cæcum and I cut down and evacuated the pus and a grape seed. The case is reported in the May, 1869, number of the *St. Louis Medical and Surgical Reporter*. Since then I have read a very able article in the *American Journal of Medical Sciences* by Dr. V. P. Gibney, calling attention to the liability of perityphilitic abscess being mistaken for hip-disease.

The next case was that of John Lyons that was reported in the *Philadelphia Reporter* for October 25th, 1879. I was called to him October 9th, 1878, and found a strangulated hernia of five days' duration with eight inches of intestine and a large piece of omentum gangrenous. The gangrenous bowel had separated, permitting a large amount of fæcal matter to become extravasated. The gangrenous mass was cut off, and the abdominal cavity washed out well, and the ends

of the divided bowel stitched into the external opening in such a manner as to allow of the abdomen being occasionally washed out with a weak solution of carbolic acid. As hopeless as the case appeared, the man made a good recovery, and has attended two crops of corn since the operation.

The next case I reported to this section in New York last year.

Now, I must think, until I am convinced otherwise, that washing out the peritoneal cavity had a good deal to do with the recovery of these cases. Thereby the products of inflammation that sometimes become so poisonous are got rid of. This doctrine is not new, neither is it original, Dr. Peasley having taught it several years ago, and it was still more eloquently and forcibly reiterated by Dr. Marion Sims in the *New York Medical Journal* a few years ago, and also by Dr. William T. Briggs in the *Nashville Medical Journal.*

These are cases such as must occur in the practice of almost every physician, and a careful consideration of the conditions necessitating an operation, will lead to the preservation of many precious lives that are now lost. Had Vallet been seen earlier by a competent physician, he might have been saved.

What I want to insist on is that in these cases of obstruction, abdominal section should be resorted to before peritonitis sets in, if possible. Many cases of obstruction in the cæcal region are caused by seeds or enteroliths becoming entangled in the appendix, causing ulceration, and, in the majority of cases, perforation and death. In other cases of perforation there are adhesions formed, permitting the pus to ultimately work its way externally. But the source of danger resulting from these adhesions must not be overlooked.

Another thing that I wish to call your attention particularly to, is the benefits derived from having an artificial anus formed. This is not a fictitious advantage, as it allows the gases that form in the bowels to escape without distending them and perhaps causing small openings in the peritoneal coat, inducing peritonitis or paralysis from over distention.

If the reporting of these cases causes any ignorant or rash

man to undertake the operation, then, to some extent, am I sorry that I have reported them. But it was not for such persons that they have been reported, but rather that they may, to some extent, throw light upon paths that others will have to travel, that were once so dark to me, and that are yet by no means perfectly clear.

Clinical Reports.

Case of Symmetrical Spontaneous Gangrene in a Young Child, due, probably, to Embolism; Resulting in Recovery.

By P. K. GRAYBILL, M. D., Amsterdam, Va.

John Robertson, aged two and a half years, above the average size, had all his life been well and hearty. During the 4th, 5th and 6th of November, 1880, he had a mild attack of scarlatina; was convalescent November 7th, and was well enough on the morning of November 11th to run about the room, and was carried to the out-door. His mother carried him around the house awhile, holding him around the legs and thighs as nurses usually do. About 12 o'clock M., she put him down on the floor that he might walk about, but instead of running about again as he did in the morning, he stood still and began to cry and complain of his legs. His mother thought little of this, and took him up on her lap again. Continuing to complain of his legs, she looked at them, and saw only a purple spot above the knee, which was supposed to be a bruise. Late in the afternoon he was so restless, and complained *so much* of his legs, that his mother removed his stockings and discovered that his feet and legs were swollen and discolored.

At nine o'clock that evening I saw the child—the first time any physician had visited him. I found him very irritable and fretful, crying whenever his legs were moved or touched. Both of his feet and legs were discolored up to from two to four inches below the knee joints. The color was paler upon the dorsum of the foot, but generally was purple, bluish, or livid. The feet were cool, the legs slightly warm, and both *very sensitive* to touch. The child had no fever, and but *very little* constitutional disturbance of any kind. At that time I had never seen, read or heard of a similar case. I gave an anodyne and waited.

November 12th—Child more quiet, appearance of legs un-

changed. Prescribed quinine, a generous diet, and anodynes to relieve pain and procure sleep.

I did not see the case then until *November* 15th. Found toes, feet and legs cold, toe-nails black, the skin shrivelled and void of sensation, and the condition and appearance of the child showed that his constitution had received a severe shock. Stimulants were added to the treatment. In a day or two the hardening of the skin, the peeling off of the epidermis, and the blackness of the discoloration removed all doubts as to the diagnosis, and I realized that I had a case of that extremely rare disease, "acute gangrene."

November 19*th*—The line of demarkation began to show itself, and a slight cadaverous odor was noticeable.

November 23*rd*—Line of demarkation more and more distinct; child's appetite and general condition improving. Tonic and stimulant treatment with good food continued; anodynes at night necessary; deodorizers and disinfectants applied to the gangrenous limbs; no pain now below the line of demarkation. Besides the gangrene of the legs thus far described, I also found upon my first visit, a livid spot about two inches above each knee, on the outer side of the thighs, which afterwards proved to be gangrenous. One of these measured two inches long by one inch wide, the other twice as large. These places sloughed deeply, and in due time healed kindly. The line of demarkation between the mortified legs and the living, healthy parts above, deepened rapidly, the dead tissue sloughing away below, and healthy granulations forming upon the stumps above. This line formed a circle directly around each limb. This line of separation, as well as the spots upon the thighs, were thoroughly washed two or three times a day with a weak solution of carbolic acid, and dressed with cloths wet with a solution of the same acid.

November 28*th*—Child's general condition not so good. He is more irritable and restless; has fever and other signs of pyæmia. In consultation with Drs. Godwin and Massie, double amputation was discussed; but on account of the very unfavorable condition of the child, and the fact that we would have to amputate high up on the thighs, the idea was abandoned.

November 30*th*—Patient's condition much better. The line of demarkation has deepened to the bones, both tibia and fibula being exposed at this point. The feet and legs from here down were putrifying masses, and so offensive that I had them covered with lime and wrapped in cloths. This

was kept on, and had the effect of absorbing all the odor and secretions.

December 8th—Patient's condition now is very favorable and encouraging. Appetite good, bowels regular, rests well without opiates, and plays cheerfully. Both legs are now off except the bones, and the stumps are covered with healthy granulations. After the last date his condition continued to improve until he became as fat and healthy and hearty as before. I took the bones off close up in the stumps, which nature's dividing line had left. These were in the shape of a cone, with the apex pointing downwards. The skin from the circumference of the stumps slowly crept down over the healthy granulated surfaces.

February 26th, 1881—The stumps were entirely covered with cicatricial tissue except the apexes, or lower points which protrude from the main body of the stumps, or rather the integument has retracted and left the bones covered with granulations protruding. I amputated one of these protrusions a short distance up into the stump. It healed up rapidly and the stump had a better shape for awhile, but the retraction continued. The same operation for giving the stumps a better shape I propose to perform later in his life, when it will be followed by better results.

April 1st—The child is perfectly well; stumps healed over nicely, and he walks about the house on his knees.

Symmetrical spontaneous embolic gangrene is sufficiently rare to be reported. Recovery with a loss of both legs in a young child deserves a record.

Profuse Flooding at Seventh Week of Pregnancy—Artlficial Delivery of Ovum Necessitated. By EUGENE J. CORDELL, M. D., Baltimore, Md.

The patient was a middle-aged multipara, to whom I was summoned at 5 A. M., on account of repeated hæmorrhages caused by the use of pills (labelled "Job Moses" pills) taken for the purpose of producing an abortion. The patient's condition was a most alarming one. She must have lost an immense amount of blood, as the bed under her was saturated, and she was pale, completely relaxed, with pulse barely perceptible, and with frequent swoonings. The gravity of the case suggested immediate and radical interference. It was deemed unwise to subject the patient to a moment's delay, lest the recurring hæmorrhage might prove immediately

fatal in her exhausted and nearly moribund condition. The purpose already formed of removing the ovum from the uterus was strengthened by the complete relaxation, which gave promise of an easy introduction of the hand without anæsthetics, and by previous experience with the same patient a year before, on occasion of a miscarriage, when a retained placenta of about three months had to be peeled away from the fundus uteri. Accordingly, after 40 minims of the fluid extract of ergot (Squibb) had been injected under the skin of the arms, and some brandy taken internally, the hand was introduced, the vagina cleared of the clots which filled it, and the ovum scooped out of the thoroughly relaxed uterus with the fingers. The fingers were still kept in the uterus, which by means of the pressure exerted thus within the organ, and by the other hand over the abdomen, was under pretty thorough control. Small pieces of ice were at the same time pushed into the vagina, and thereon into the uterus. The internal hand was not removed for an hour or more, or until such an amount of uterine contraction was felt as removed all fear of further hæmorrhage, at least for the time. The result was perfectly satisfactory. There was no further hæmorrhage, and under the free use of iron and an abundance of nutritious food, the patient made a more rapid convalescence than was to be expected.

On both occasions referred to here, the introduction of the hand into the uterus was accomplished with ease—in the first case with chloroform, in the second without. In the second case, however, the patient was so completely exhausted, that anæsthesia was out of the question, and the introduction of the hand caused very little discomfort. It is right to state, also, that the patient was a German, that she had a very large and capacious vagina. The great difficulty of getting the uterus to contract in the first instance, notwithstanding the free use of ergot, hypodermically and by the stomach, of ice, pressure, local irritation, etc., had much influence in the decision what was best to be done in the second.

125 *North Charles street.*

I have used Celerina in a case of general debility, caused by sexual excess, and the patient has greatly improved under its use. N. S. Read, M. D., *Chandlerville, Ill.*

Correspondence.

Is It Nasal Catarrh?

Mr. Editor,—In general practice we very often meet with cases which, in a hasty diagnosis, we call catarrh. Persons complain of something falling from the posterior nares, and this occurs usually after an interval of silence in the erect position. If we examine the posterior nares with a reflector, we may find the cause to this trouble in the form of a horizontal curtain partially, or, it may be, wholly closing the passage between the nose and pharynx. This curtain is simply an enlarged condition of the posterior pillars of the soft palate. If we divide this curtain we shall find that the *quasi* catarrh has disappeared. Since our attention has been called to this subject, we have found that persons who speak "through the nose" have this catarrh more or less extensive, and instead of speaking through the nose, it is just the very opposite—there is a deficiency to the passage of air through the nose in order to give distinct utterance. This leads us to make the additional remark that the nose should be considered as one of the vocal organs, for certainly a clear utterance and distinctness of speech depends very much, if not wholly, upon a clear passage of the nasal organ.

E. E. Rirpel, A. M., M. D.

Detroit, Mich., June 9th, 1881.

A New Anæsthetic.

Mr. Editor,—I made a memorandum of this case while I was physician to Virginia Agricultural and Mechanical College. Some time during the summer of 1879, two or three of the boys (students of the above college), secured a two-ounce bottle of the *perfume* from the skunk or pole-cat (*Mephitis Americanæ*), and concluded at once to play a trick upon one of their schoolmates; entering his room, they held him, and administered the above nauseous fluid (in its most concentrated form, by inhalation. I could not ascertain what amount was administered. However, when I reached him I found the following symptoms: A total unconsciousness, relaxation of muscular system, extremities cool, pupils natural, breathing normal, pulse 65, temperature 94°; in which condition he remained for one hour. During that time I ad-

ministered small quantities of whiskey at short intervals *per orem*, with some difficulty of getting him to swallow. Friction was used about the extremities, also hot pediluvia. He was finally aroused, suffering no inconvenience from its effects except a slight headache, which passed off after a good night's sleep. W. B. CONWAY, M. D.

Blacksburg, Va., July 28, 1881.

[We would prefer other means of producing anæsthesia, yet it may be that the Mephitis Americanæ can be made serviceable by those who desire to make further experiments. —ED.]

Original Translations.

From the French. By RICHARD H. LEMMON, M. D., Charlottesville, Va.

Treatment of Diphtheria by Pilocarpin.—In the space of a year-and-a-half, the author has treated 81 cases of diphtheria without losing a single case. After such remarkable success, he says it is difficult not to admit that this remedy is of sure and certain action, and in every way superior to those which have been previously extolled in this connection. Some of his colleagues, among them Gelsner, of Pitschen, and Dilewsky, of Crabow, have verified this efficacy. Dilewsky has found pilocarpin successful in a case which had been considered quite forlorn. In a great number of the cases, pilocarpin was the *only* treatment. The recovery, too, was effected in a very short time—usually from 24 hours to 3 days; in very ill cases, from 9 to 11 days. He gives it internally, together with pepsin, which has a tendency to control concomitant intestinal catarrh; and it has also a solvent action on the membrane in the fauces. Beneath is the formula for children:

℞. Pilocarpin hydrochlorate from gramme 0.02 to 0.04
Pepsin..... .....gramme 0.06 to 0.08
Acid, hydrochloric. ..... 2 drops
Distilled water..... 80 drops
M. S. Dose: A teaspoonful every hour.

Formula for adults:

℞. Pilocarpin from .....gramme 0.03 to 0.05
Pepsin..... 2 grammes
Acid, hydrochloric..... 3 drops
Water..... 240 drops
M. S. Dose: A tablespoonful every hour.

No unpleasant effects have ever been observed following the administration of the above, probably, as he says, because he has caused to be administered after each dose of medicine a spoonful of wine. Salivation has usually promptly followed this therapy, which is a most favorable sign. The author declares, that in order to use the above method of treatment successfully, the following directions should be vigorously executed: Every hour there should be given a teaspoonful (a tablespoonful for an adult) of the mixture prescribed, and immediately afterwards a spoonful of wine. These directions should be followed during the night. Many doctors have often a fatal prejudice against waking a patient up to administer medicine, holding that sleep is more salutary than the possible good effect of the medicine. On the contrary, I have found that continued sleep produces dryness, inflammation, swelling and increase of the diphtheritic exudation in a fashion that is painful and alarming. Three times a day (*i. e.*, every 8 hours), I order the application of a Priessnitz compress, and every 2 hours I direct the administration of small quantities of hot soup, milk and coffee. Finally, as a most important adjuvant, cold and refreshing draughts of water, or small pieces of ice should be taken as a substitute. The author begs that his colleagues should make trial of this method of treatment with which he has been so signally fortunate, and declares that the success attending this pilocarpin treatment of diphtheria is, to such a degree, wonderful and irrefutable, that henceforth he will maintain it with great confidence to be a sure, specific and absolute remedy for diphtheria.—(Dr. G. Güttman, in *La Medicina et la Farmacia* for March, 1881.)

[Note by Translator.—So many new remedies have been published and lauded for the treatment of diphtheria, which have been utterly inefficacious in relieving the more malignant types of the disease, that the profession may be excused for looking with hesitation and doubt even on as fair results as those above noted. Nevertheless, when we remember how utterly we are without any specific remedy for this disease, how uncontrollable its more serious manifestations are, it becomes our duty to test every means that may be rationally advanced upon this obstinate plague. Also the wonderful power possessed by pilocarpin in producing changes in the vascular equilibrium would seem to suggest a possible and rational theory of action in the relief of diseases like diphtheria, which are dependent upon certain abnormal tissue changes of a specific inflammatory character.]

Rickets and the Phosphate of Lime Treatment.—The introduction of phosphate of lime as a therapeutic agent is not of novel date. If we glance over old pharmacopœias we will notice groups of formulæ in which are constantly found, as the active ingredient, such substances as calcined stag's horn, eyes of crab fish, oyster shells, etc., all of which are composed principally of lime phosphate. Modern physiological experiments, as to its action on the body, have been conducted by Chassat, Lassaigue, Cazalis, Guérin, Piorry, Gosselin and many others—these experiments all tending to confirm the good opinion held by the ancients as to its value in certain conditions. The properties of lime phosphate, as revealed by the light thrown on the subject by modern experimenters, may be summed up in the following: It has an immediate action over the consolidation and reparation of the osseous system; at the same time, and above all, it acts as an excitant of assimilation. In dogs, rabbits and chickens, nourished on those aliments in which lime phosphate abounds, there is found after death a relatively enormous increase in the mass of the osseous system as compared with the same system in animals of similar kind and age, nourished on the same food, with the phosphate of lime omitted.

Touching the second property of lime phosphate—that of energizing the vital irritability, without which we could not have assimilation and nutrition, Gubler holds that a portion of this salt is broken up into phosphorus, which is directly assimilated by the nervous system. Among the important properties of lime phosphate is its power of being assimilated. We should never lose sight of the fact that that which nourishes is not that which is eaten but that which is digested. An idea which cannot help suggesting itself, and which is a most happy one in this connection, is the association of a peptone with the above salt. It should be rendered soluble and taken in the state of chlorydro-phosphate (peptone phosphatée, of Bayard) Composed of two elements—meat and phosphate—soluble and directly assimilable, the wine of Bayard is a most admirable, energetic renovator, possessing a power of stimulating the organs of digestion and of promoting the nutrition of the body as a whole; it is an anti-rachitic of the very first order. Personally, I have experienced the very best results from the use of this agent among badly nourished children—those afflicted with strumous troubles of the eyes, ears, glands of the neck, in a word, with those who, from their appearance, history and symptoms, we judge are the victims of the scrofulous dia-

thesis. Following the same idea of application, the peptone phosphatée has been found extremely efficacious in the treatment of the troubles of a certain class of females after pregnancy. Not only in these cases does it improve the mother, but also indirectly is of most signal advantage to the offspring. Most applicable is it in those cases of bone softening following pregnancy. Here, let us call attention to the noteworthy report of Dr. Pégot-Ogier touching the effects which follow the employment of lime phosphate:

(1.) "Among pregnant women a large number of mishaps are prevented—also the number of dead-births much diminished."

(2.) "The milk, so often poor in phospho-calcic elements, comes up to the normal standard of richness demanded by nature for the proper care of the child."

(3.) "Through infancy, childhood and youth, by means of its employment, we may prevent lymphatic troubles and maladies dependent upon defective ossification."

(4.) "The mortality, which in Paris amounts, for the first year of life, to one death out of three, is diminished to one out of five."

Finally, I have constantly found the most beneficial results attending the use of this preparation in all the osseous affections, caries, necroses, osteomalacia, Pott's disease, etc.—(Dr. Des Vallièenes, in *Le Progrès Médicalé*, March 5th.

A Prophylactic against Intermittent Fever.—Professor Tommasi Crudeli, during one of the final sittings of the Roman Academy, read a very interesting paper on the subject of a prophylactic for intermittent fever to be used by those who might be exposed to infection. The readers of the *Journal de'Hygiène* will doubtless remember the researches of this savant concerning the causation of intermittent fever, which have, from time to time, been published in our columns. It is enough to remind them that a living contagium has been demonstrated—the "*bacillus malariæ*," and exhaustive and repeated experiments have been made to substantiate its causal relation to intermittent fever. Having satisfied himself as to the etiology of the disease, the Professor then asked himself if it might not be possible, by the employment of an anti-fermentative, so to saturate the human system as to fortify it against the inroads of this disease germ. After careful consideration and the ineffectual employment of the ordinary disinfectants, he bethought himself of the efficacy of arsenious acid in obstinate intermittent fever, an efficacy which he had often demonstrated after the failure of all other

remedies. Very soon after its trial he had abundant reason to congratulate himself most warmly, for its use as a prophylactic was attended by the most gratifying results. He uses Fowler's solution in small doses. Its employment in quantities sufficient to obtain immunity from malaria, has been quite unattended by hurtful effects on the general health.—*Journal d'Hygiène*, March 31, 1881.

[Note by Translator.—It may not be out of place here to mention that Dr. Sternberg has been quite unable to verify the facts reported above in such a certain fashion. In examining cases affected with paludal and intermittent fever in the swampy district around New Orleans, he has not found the *bacillus malariæ* of Klebs, Tommasi Crudeli and others. This failure to verify, by a man of his acknowledged ability, a *contagium vivum* at New Orleans, which has been so frequently demonstrated of late about Rome, in the same disease, should make us look doubtfully at the conclusions published as to the causal connection between the bacillus and the disease. Certainly if the same disease occurs about New Orleans *without* the co-existence of the *bacillus malariæ*, it would be clear that about Rome its presence was merely a co-existence and not a causal factor. Further verifying results are then needed before we can receive the *bacillus malariæ* as a true *contagium vivum*.]

Treatment of Floating Bodies in the Knee-Joint.—M. Gayot Candidate read a memoir on this subject before the Paris Academy of Medicine. The author arrived at the following conclusions:

(1.) "The extraction of foreign bodies from articular cavities is possible without very much risk; still he does not think it a justifiable treatment unless the function of the joint is interfered with, and palliative means are ineffectual."

(2.) "The open method of extraction he prefers to the subcutaneous, for the reason that it is, in his opinion, more easy, certain and far less dangerous in its after consequences. *Le Progrès Médical*, April 2, 1881.

Old Ulcer of the Stomach Successfully Treated by Washing the Stomach.—The washing out of the stomach recently introduced into therapeutics has, up to the time of writing, yielded the most interesting results. We have not time nor space to review these results minutely, but merely beg leave to present without comment the following case:

The individual was affected with a simple ulcer of the stomach and, on account of the concomitant digestive troubles, was suffering when I saw him from extreme marasmus.

He was admitted at the Bicètre and placed among the incurables in the service of M. Deboune. He several times had vomited blood in large quantities, and almost continuonsly spit up glairy and bilious matter. These symptoms were usually accompanied by intense pain in the epigastric region. On the 8th of January, 1881, I examined him for the first time. I especially noted two things—the absolute intolerance of the stomach and the extreme bodily wasting which he exhibited. Every attempt to retain nourishment was ineffectual. I tried him with a few spoonfuls of milk, which he immediately vomited. His members reduced to a skeleton-like state, scarcely permitted him to perform any muscular combinations. Assuredly it appeared that the debility and inanition of which he was the victim had arrived at an extreme, beyond which they could no further go. and death was bound to supervene. In view of his desperate circumstances, M. Deboune prescribed the stomach bath, employing the most advantageous method of accomplishing the washing out—the method of Faucher. We commenced this treatment on the 10th of January, and, at each sitting, passed through the stomach 8 litres of ordinary water and 2 of Vichy water. On the 12th every thing had worked so well that the patient ceased to experience uneasiness at the procedure. We also prescribed a milk diet, together with meat-juice. To-day it has been six weeks since the treatment was begun. The attending results are marvellous. The pain has completely disappeared, the vomiting finally stopped, and the strength much increased. The patient's diet was no longer restricted, but he eats every thing he fancies without discomfort, even those viands reputed indigestible, such as peas, salads, etc., he takes with impunity. The results are also satisfactorily demonstrated by the increased weight and improved appearance of the sick man. On the first day of treatment, he weighed 125 pounds; on the fifth, 126; on the seventh, 127; on the twenty-second, 130; on the twenty-seventh, 132. During the first five days the increase was at the rate of 125 grammes per day, 100 for the four weeks following. These figure are sufficiently eloquent, and need no comment.—G. Bouicli, in *Le Progrès Médical* of April 2d.

Hepatotomy.—Mr. Lawson Tait, of Birmingham, England, has performed hepatotomy three times recently, with perfect success. There was no adhesion of the liver to the walls in two of the cases, and the wounds were stitched together.

Coca. (From the *Journal d'Hygiène.*) Translated by Prof. C. HOWARD YOUNG, formerly on staff of *Journal d'Hygiène d'Paris.*

Coca, hardly known to-day to the most of us, has yet had its hour of celebrity; the Incas venerated it as holy and burnt it on the Altar of the Sun, enveloping in its precious fumes the victims of the sacrifice; to be admitted to the honor of eating the sacred leaf constituted the most enviable recompense for the person whom a heroic action or high virtues designated as worthy of a sovereign's favor; finally, the wife of one of the descendants of the Divinity regarded it as a high honor to bear the surname of Mama cuca (mother of coca).

Several leaves sufficed to form a talisman which ensured the happy possessor recovery from disease, the favor of fortune, or success in love; coca was the plant, *par excellence* (Khoka), the universal panacea; the house where it was conserved on that account alone enjoyed immunity from all crime and accident, and if at times an event occurred in glaring contradiction to the holy tradition, the priests of the sun made an additional reverence; it was God's will.

Fatality, destiny, punishment or affliction, the word varies according to the religion, but is every where implacable and represents the only power in this world to which one is always to submit!

The conquerors of Peru annihilated the Incas and proscribed their religion, but they conserved with care the privileges; their genius for civilization readily comprehended the advantages to be drawn from coca, in a country where man is submitted to the hardest labor; they popularized its usage, and when the fathers of the Church, in reaction, treated its action as a dream, worthy at most of the credulity of a superstitious people, they were unable to restrain the popular current which persisted in profiting by the extraordinary qualities of the coca, without believing itself on that account irrevocably allied with the devil.

South America commenced its therapeutical celebrity; Linné gave us a description of it, and Joseph de Jussieu, companion of La Condamine, brought over to us the first authentic specimens. Now, if the virtues of this plant justified the adoration of the Peruvians, why did it not come earlier to us?

How is it that we have not tried to appropriate this revenue, considerable as it is, since the mines of Polosi alone

consume 100,000 bales at 25 francs apiece, and the Bolivian Government receives nearly two millions by the tax?

Dr. Gosse, at Geneva, Mantegazza, in Italy, Gazeau, in France, etc., have tried this therapeutical agent, without succeeding in bringing it into general use.

Coca, of which the leaves only are employed, bears in botany the name of erythroxilum coca; it is not found in a wild state, and grows in warm countries, where its cultivation is a great source of riches, since it gives a revenue of nearly 15 per cent. As soon as the leaves have attained their complete development, which is about four centimetres (1.6 inches), they are picked carefully, one by one, in order to preserve the bud, hope of the following harvest; the fallen leaf becomes spotted and is valueless; it ought to be of a fine emerald green, not bend (too young) or break (sign of decay).

After first drying under a moderate sun, in covered courts, the coca is transported in woolen sacks or in baskets formed of cut reeds, covered by banana leaves and tied with vegetable cords; this packing is insufficient to guarantee the coca from damp, which deteriorates it to such a degree, that one is obliged to sacrifice a considerable part, if one does not adopt some mode of transportation analogous to that of tea.

One understands how a plant, requiring such precautions, whether it comes from Bolivia or even from Peru, where it is said to be less delicate and more dry, should have doubled in price on arrival at destination; for this reason, Dr. Gosse counsels its naturalization in mountainous countries in our neighborhood; several authors believe that it might grow at Hyéres, France, but the experiment has not been seriously tried.

The Indians use coca as a stimulant to still hunger and adjourn sleep; taken in a certain quantity, it will raise the spirits, banishing care, happy prerogative, alone sufficient to ensure it the most legitimate success!

But when, according to the estimation of Dr. Lipmann, "from the quality of taking the place of all food, to that of inspiring resolution, courage, even wit, it is a question of distinguishing the true from the false, reality from fiction," one interrogates then the two hemispheres, and one calls to aid the savant who hesitates as well as the innovator who dares!

The quality which all recognize in coca, is its stimulating virtue increasing the heat of the blood, and giving an unheard of force to the muscular system.

According to Dr. Tschudy, a man can work five days

without other nourishment than 14 grammes of coca every two or three hours; but Dr. Weddel adds that, under these conditions, the Indian does not forego the evening repast, and that the coca only prevents him from feeling during the day the frightful pangs of hunger.

Dr. Unanúe, an earnest partisan of the celestial plant, mentions the case of a courier, on service between Chiquisata and Paz (about 100 miles), who carried for this long journey only coca and two pounds of burnt maize or potatoes frozen and dried; and further relates that, towards the termination of the siege of La Paz by the insurgents, in 1871, the inhabitants, after a blockade of several months, during a rigorous winter, in want of provisions, were yet obliged to war simultaneously against the elements, the exigences of nature and the attacks of the enemy. A few had laid in a stock of coca, and this resource, apparently so scanty, turned out the most powerful of allies, since it permitted them to support fatigue, suppress sleep, endure hunger without suffering and to brave the rigors of the cold.

During the same war, a body of patriot infantry, obliged to traverse, during a rigorous season, one of the coldest plateaus of Bolivia, found itself deprived of provisions, while advancing in forced marches to rejoin the division encamped at Janin; on arrival, hunger and fatigue had decimated it, and but few were in a state to combat, but these privileged ones were nearly all young mountainers, habituated from childhood to carry with them always a stock of coca; from time to time, they swallowed tiny balls, prepared in advance with the leaves of coca, from which they had removed the nerves and which they chewed until they contained no more uice. This precaution conserved their strength.

Whether it be by a tonic action, stimulating the nervous system, or in virtue of the nutritive analeptical elements contained in the leaf; whether it be as, according to some, an occupation for the nerves, or as, according to others, a real nervine aliment, it is certain that "by the stimulation which it gives to the whole economy, it hinders the incessant material losses in such a manner as to render less necessary their immediate reparation." (Dr. Gosse.)

When an Indian arrives at the terminus of a forced march, during which coca has been his only nourishment, he seems at first sight to have preserved his strength, but he must count also on an emaciation which represents a personal waste; the sensation of hunger remains unperceived by him, whether it be that the chewing has absorbed his attention, or

that the insensibility which the coca produces on the buccal mucus, extending equally to the mucus of the stomach, averts the epigastric pains. But even if this effect is sufficient to attenuate the effects of the privation of nourishment, it cannot take the place of nourishment itself—supreme want imposed on man by the Creator.

The aroma of coca is very similar to that of tea of good quality, but its flavor is stronger, bitter and slightly astringent; it produces a sensation of heat which nearly approaches lethargy in some persons.

Carefully guarded against moisture in tin vessels, or linen sacks containing a little chalk, coca gives an infusion which is a real treasure for a weak or over-charged stomach; in the proportion of two to three grammes to a glass of water, it constitutes the most healthy after-dinner drink, because it facilitates the digestion; simply masticated in the natural state, it excites the movements of the heart four times more than tea, twice more than coffee (according to Mantegazza), increases the vital heat, combats with success the influence of evil emanations; taken in too large quantities, it communicates an intoxication analogous to that produced by hachisch, but without loss of consciousness—intoxication not very dangerous, for that matter, from the standpoint of popular hygiene, its price being always too elevated for the masses.

Certain authors believe that they have found in the coca an efficacious remedy for pneumonia, or against intermittent fevers; in Peru it cures the mountain malady; for the Indians it is a universal remedy. We find in all these exaggerations the same principle; the coca gives tonicity to the tissues and impresses on the organism more vital resistance; it produces a favorable excitation, renews the strength and dissipates the tendency to vertigo.

Sir Robert Christison related recently, in his lecture to the Botanical Society of Edinburgh, that, in order to comprehend the stimulating properties attributed to this plant, he had chewed several leaves during his two ascensions of the Ben-voir Lich; arriving at the summit, Sir Robert, who is no longer young, found himself greatly fatigued, but the coca-leaves completely invigorated him, and he accomplished the descent easily and very joyously. The learned traveller adds, that by the use of coca he was enabled to walk immediately afterwards sixteen miles without a thought of the fatigue which he had at first experienced.

The Medical Society of Santiago (Chili) received lately

from Dr. Manuel A. Espinosa an interesting treatise on the erithroxilon coca. The analysis of the leaves of this plant, made in 1859 by Niemann, revealed to us the cocaïne as the medicamental principle contained in the coca. Dr. Espinosa explains to us the presence of the clipta, alkaline matter which the natives mix with coca-leaves in the formation of pellets, which they eat daily under the name of acullies. "The cocaïne being an alkali, the action of the clipta on the coca is easily explained: the cocaïne existing in a state of combination with organic acids, an alkali of any kind or an alkaline carbonate would release it from its union, favoring thus its dissolution in the saliva, and therefore ulterior absorption."

Our learned confrere spent twenty-six days in observing on himself and a friend the influence of coca on disassimilation; he succeeded in proving conclusively the augmentation of urea and carbonic acid. With Drs. Gazeau and Rabuteau, he considers coca as one of the surest agents of organic disassimilation, as a stimulant of the nervous system, on which the slow and continued action is very characteristic.

The observation of the author seems to be as exact as methodical; coca is not, according to him, yet fully understood; but one can foresee that cocaïne, being soluble in alcohol, and, above all, in ether, the best pharmaceutical preparation of coca will be the ether-alcoholic tincture.

In the meantime, it is generally administered with a generous wine, which facilitates the absorption.

Professor Mantegazza counsels it as a cold lotion once or twice a day, to whiten the teeth, polishing them with a powder made of coca-leaves, mixed with rose-honey. He also extols the practice of masticating the leaves—a custom which presents none of the nuisances of tobacco-chewing, and procures, according to him, a sensation of calm and indefinable *bien-etre*. "Buy," he says, "a little tin box, fill it with coca of good quality, and when you feel fatigued, sad or irascible take a pinch, masticate it slowly, swallowing the juice until there remains only a residue, insipid and spongy as tow."

The eminent hygienist is not satisfied with wishing to make us chiqueros (chewers of coca); he even seeks to make use of the narcotic principle contained in the plant, and is capable, he says, of rivalling tobacco. The leaf calcinated leaves white ashes and exhales a tobacco-like odor; the union of the two plants produces an intoxication analogous to that of hachisch. There are in reality several points of

resemblance; so that he wishes without abolishing smoking (difficult undertaking) to substitute the vice by a hygienical habit, in requiring the smoker to renounce the cigar in favor of chewing. "Become coquero," he says, "and the air which you render unhealthy for yourself and troublesome to others will retake its purity; and if you select coca of good quality, you will see that a pinch of leaves chewed suavely is well worth several cigars, and will renew the heart spiritually and physically.

We sincerely approve the efforts of the congenial writer, but we believe that chewing will hardly enter into our habitudes, or that the cigar will be left out. Could we not make new cigars with the coca?

We give our idea for what it is worth to manufacturers, so skillful in such matters. They will perhaps find the means to send up the celestial smoke of the Incas!

[Translator's Note.—Learning that Mariani, one of the most eminent chemists of Paris, made several preparations of coca, I paid him a visit at his laboratory, and received a number of leaves as specimens. He showed me several green coca-plants, which he said flourished very well during the winter in the green-house, and in summer in the open air. My attention was called to the fact that the coca-leaf held to the light gave the singular effect of a skeleton of a leaf, running through the centre. By this peculiarity it was discovered to a certainty to be the same medicinal plant as that used by a Lyonese doctor in 1602, and mentioned and described in a medical treatise of that epoch. It was lately found at Lyons; so that the present disputations of medical celebrities as to who first introduced coca into Europe is taking a new direction, or rather an old one, and is likely to become endless. A large work on coca is shortly to be published at Paris.

As a student, during nine years abroad, of the medical literature of France, Germany and Italy, I think it but fair to add my small testimony in favor of the truth. I believe the honor to fairly belong to the most popular hygienist of modern Italy, Professor Paolo Mantegazza (already mentioned in the above article), founder of the *Igea and Medico de Caso* (medical journals of North Italy), and formerly Professor at the Royal University of Milan, now at Florence. Many interested themselves later in the introduction of the coca to Europe, but the real honor belongs to this eminent humanitarian and traveller, who spent a number of years in the land of coca, and on his return energetically diffused its

use in Italy, and from thence to Switzerland and Germany. Honor to whom honor is due!

The above-mentioned chemist, Mariani, related to me that during the four years he had made a specialty of coca under the form of wine or elixir, the demand was thrice as great for the same as for his specialty of quinina. I would further say that a number of Parisian chemists make a specialty of coca, and all without exception prepare coca wine on the prescription of a physician. One finds coca-leaves for sale at all drug-shops in Paris. Even in the larger towns in Italy one finds them at the principal chemists. I remember, a couple of years ago, paying a visit while at Milan to a large pharmacy (Bera), justly celebrated for its excellent coca-leaves. At all the cafés in Italy they serve Elixir di Coca Boliviana, made by a great firm that makes a specialty of this product. I observed that the Neapolitans found it as agreeable to their palate and digestion as the Milaners.

Lately I visited the Jardin des Plantes, at Paris, in order to see a fine coca plant. It is hoped with reason that the acclimation of the plant at Hyéris will be successful.]

Proceedings of Societies.

New Hampshire Medical Society.

(By a Special Reporter.)

The Ninety-first Annual Meeting of the New Hampshire Medical Society was held in Concord on Tuesday and Wednesday, June 21st and 22nd, 1881. It was a large and enthusiastic meeting—considering the fact that New Hampshire is but a small State, and the members of the profession are scattered over the whole territory, there being one hundred and twenty-five present.

The Society was called to order at 11 A. M., the President, Dr. G. P. Conn, of Concord, being in the chair, and for an hour the Fellows attended to the routine work of the Association and the election of new members, sixteen of which were present and afterwards took part in the proceedings.

It is a custom of the Society that the President shall, at 12 M., address the Fellows upon some medical topic. Consequently, at that hour Vice-President H. B. Fowler took the chair, and Dr. Conn read an address, in which, after devoting a short period to suggestions and recommendations

for the consideration of the Society, he gave an interesting *resume* of the progress of State Medicine and the necessity of the profession taking the lead in public opinion in matters of this kind.

A brief extract of this paper would fail to do justice to the writer. Yet I would fain bring out one point which he made when commenting on the care the State exercised over the lower animals, for in New Hampshire there is a statute that allows the Governor to appoint a commission to investigate into the causes of epidemic disease among domestic animals. After alluding to the time and place that epidemic and contagious diseases had occurred in the State, he said: "It is generally understood that in case a serious epidemic occurs among the herds of cattle that are scattered over the hill-sides of our State, the Governor and Council are at once to be petitioned to afford such relief as may be possible, by instituting an investigation into the causes of the disease, and to suggest the means of staying its progress and preventing its influence upon those not yet affected. This was done soon after 1850, and again in the winter of 1879 and 1880, when an epidemic of small proportions made its appearance in a fine herd of cattle in the town of Haverhill, when the Governor was importuned by the owner of the herd and others for aid as provided for by the general laws. The petition was heard, and the Board of Agriculture at once assumed unusual activity. Telegrams passed over the wires at lightning speed; letters were posted to distinguished veterinary surgeons, and a commission was appointed to investigate, without delay, in the causes of the disease, as well as to report upon the malignant or benign influence that would probably be experienced by other herds in the vicinity. The commission attended to their duty faithfully, while the whole State, if not the whole of New England, eagerly watched the papers for some intelligence of the nature of the disease, when it was found that less than a dozen head of cattle were sick. Some five or six died or were killed during the investigation, and the epidemic subsiding, it was concluded that a little more intelligent sanitary care of the stock and their surrounding would have prevented the disease. Yet the owner has since asked the State *to indemnify him for the loss of his cattle.*"

The speaker claimed that this was but an act of justice towards the agriculturist, but at the same time would like to see the same prevail in regard to the human race. Continuing, he said: "At the time this investigation was being car-

ried on at Haverhill, backed by the general laws and encouraged by a strong board of men who ever on the alert to develop and foster any measure that will aid and sustain our agricultural friends, an epidemic of diphtheria was prevailing in the town of Franconia in the same county, and less than twenty miles distant, of so malignant a character, that in twenty-seven cases occurring between December 11th, 1879, and January 20th, 1880, there were seventeen deaths, or a fraction over 65 per cent of the whole number taken ill. Of course there was no investigation by State authority, for with all our talk of equality, our bill of civil rights, our glorious Constitution, our general and pamphlet laws, that biennially require the eminent services of more than three hundred of our representative men from six to twelve weeks to amend and remodel, there is no authority to grant to suffering humanity the aid and assistance that can be afforded to the brute creation. The local physician must bring to his aid such resources as he can, and may, in extreme circumstances, invoke the assistance of charity for the destitute and improvident; but he must not expect any such aid as would be freely accorded to a herd of cattle suffering under similar circumstances."

After remarking that the State and the people had spent a great deal of time and money in endeavoring to do away with the evils of intemperance, he said he could not perceive any vaild reason why the State should not interfere to protect a man who is ruining his own and his family's health by living in an infected or unhealthy tenement, or is using water polluted by sewerage, adulterated food, or sophisticated drugs, than there is in an attempt to prevent the same result from intemperance, for who of you ever knew or heard of seventeen out of twenty-seven persons addicted to intemperance to die in less than a month, and that, too, in a sparsely settled country town of less than twelve hundred inhabitants?

In closing his remarks, he urged all to unite in a common cause and insist that the State should use the same protecting power for the preservation of the human race that it did for the animal creation.

In continuation of the programme, Dr. A. H. Crosby read an able an interesting report upon the Progress of Surgery, illustrating his position with an interesting report of cases that had occurred in the State during the past year.

Dr. D. W. Jones, of Portsmouth, gave an address on *Nihilism in Medicine*, and Dr. Felt, of Hillsboro, an essay on the *Hypodermic Medication.*

The Society sat down to the anniversary dinner in the Eagle Hotel at 2 P. M., which was followed by *post prandial* exercises under the direction of Chairman Tufts, of Dover, for an hour and a half.

At 4:30 the regular exercises were resumed, and Dr. J. W. Parsons read a practical paper on *Puerperal Convulsions*, and Prof. Frost, of Hanover, a paper on the *Origin of Typhoid Fever*. These papers were discussed and referred to the Committee on Publication.

In the evening, Dr. L. G. Hill, of Dover, of the Committee on Necrology, read his report, and the discussion of papers and reports was continued until a late hour.

On Wednesday the election of officers and other routine business took place by assignment, after which the report of cases and discussion of reports were in order until the adjournment in the afternoon.

The following officers were elected for the year: President, Drs. H. B. Fowler, of Bristol; Vice-President, A. H. Crosby, of Concord; Treasurer, D. S. Adams, of Manchester; Secretary, G. P. Conn, of Concord. Executive Committee, Drs. J. W. Parsons, of Portsmouth, P. A. Stackpoli, of Dover, and M. W. Russell, of Concord. Anniversary Chairman, Dr. C. A. Tufts, of Dover, with a council of twenty members and ten censors.

The next annual meeting will be in Concord, on the third Tuesday of June, 1882.

Analyses, Selections, etc.

General Lower Extremity Splint—Extension and Counter-Extension by Weight of Limb.—At the annual (April 12th, 1881) meeting of the Bergen County, N. J., Medical Society, the President's (Dr. A. Clendenen, Fort Lee, N. J.) address consisted of a "Resumè upon *Fractures of the Lower Extremity*," noting their several peculiarities and treatment by various surgeons of the past and present; with detailed description of the different splints used. The doctor's experience in the army had made him adverse to the *flexed* position. He spoke of suspension as the first requirement, and of the various crude splints wherewith he had obtained it. He said that no suspensory splint yet introduced was of itself capable of counter-extension. He spoke of the "anterior

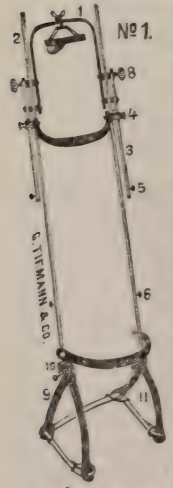
splint" of Dr. N. R. Smith, of its cheapness and simplicity, but said that the first objection to it was not only its flexion, but its in fact necessary flexion—without which we would be deprived of the popliteal hold for plasters, and traction, for extension. This extension was when effected at the expense or give way of plasters above the line of fracture, if of the femur, but if of the tibia and fibula, there was in fact little extension practicable. The second objection was inadequate support of thigh, often resulting in angular deformity at point of fracture, sometimes directly caused by leverage on pelvis. After a citation of cases and statistics of shortening, Dr. Clendenen exhibited his splint, and set forth his claims in the following language:

"The presentation to the profession of a *general lower extremity splint*, *entirely novel* in principle and in its arrangement, viz:

"1st. In that when in suspension, it by weight of limb is capable of extension and counter-extension. (The average weight of limb of adult is 20 pounds—which is the average weight used for extension—and the average weight of limb of child is one pound per year—which also is the average weight used for extension.)

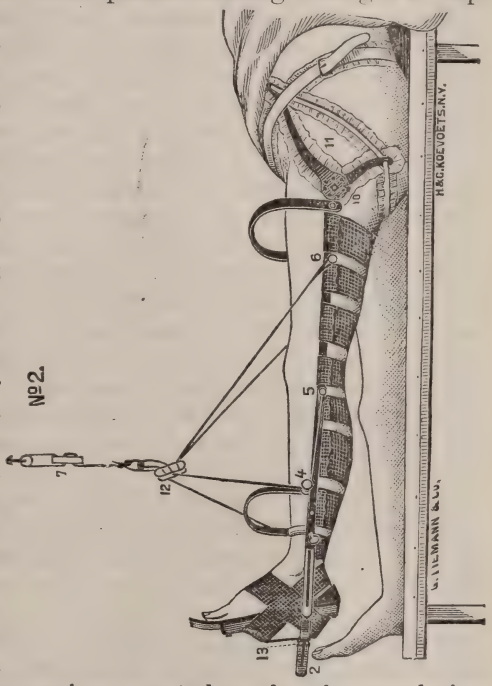
"2d. In that with the comforts of suspension, it is capable, as required, of little or no extension or counter-extension, but of *fixation* of hip-joint, knee or other section."

Description.—The splint may be described as consisting of



main frame, formed by two side pieces (of ½ inch by ⅛ inch iron), running from 2 to 10, plate No. 1, with two bowed cross braces, as seen at 4 and just in front of 10, plate No. 1. From 2 to 4 in this main frame is on each side a slot, in which slide a cross rivet and a set screw—8, plate No. 1—both connecting, with washers between, the *outside* pieces 3, to the *inside* or foot-piece, 1. (This slot is 8 inches long, so the splint can be used for almost any adult limb.) On the outside piece 3, at 5, is a knob for attachment of rope or cord, which passes forward and under pulley 4 (which revolves upon a rivet in brace), and thence through block 12, back to knob 6, on main frame. At 12 the angle of suspension can be set as thought proper, and from 12 to ceiling, or other attachment, the degree of elevation is regulated by block 7, plate No. 2.

Irons 9, plate No. 1, are attachable by screw bolt at end of main frame, and their angle is regulated by pin in holes at 10. After setting of pin and tightening of set bolt, the horizontal position will be obligatory, but by the loosening of the same, as in tibia and fibular fractures, with counter-extending plasters from below knee, section 10 resolves itself into a mere hinge of even bearing, allowing a free and harmless set up by patient. The pieces forming triangle at hip-joint section 11, plate 2, are bent angles to suit the flesh lines, and are of different length and shape from those used on the inside, which are twisted to show flat surface toward pubes and perineum, but these pieces can be used on either side, in order that the splint can be used for either limb. Particular attention is drawn to the fact that not only the hip-joint, section 11, can be most comfortably *fixed* and controlled (the lack of which ability has often been realized in neck fractures, trochanteric impactions, etc.), but that by regulation of angle of rubber bearing from ends of 9, by set of pin at 10, the line of counter-extension can effect inversion or eversion of limb, which in some of the shaft fractures is with proper elevation very desirable.



The peculiarities of the foot-piece are, that in addition to slot in outside iron and set-screw at 13, plate 2, by which the foot may be raised or lowered, and limb in- or everted; that by the above and below rectangular slots such attachment and comfortable bearing can be had above heel and over instep as to make unnecessary the attachment of plasters (which at any rate are comparatively useless in fractures of the lower third of tibia and fibula).

Application.—Whilst the limb is resting on mattress 9, irons with rubber tubing bearing upon cushions (hair), are adjusted to the parts and abdominal band and cushion in connection applied; and in hip-joint troubles, triangle 11, has been additionally fixed by a piece of felting or pasteboard, moulded to section and saturated with starch, plaster or silicates, over which come the bearing of the irons and rubber. The bandages (which I used of hair cloth) are attached by pins to one side of the splint. The splint is next set over limb and the bandages, one by one, drawn through and pinned to suit the limb lines; next the connection at 10 is made by the screw-bolt, and the foot-piece is slid up and hair bandage over stocking drawn out through slots and pinned. Set-screw 8 is kept tight until angle of cords and of elevation has been, by blocks 12 and 7, arranged. It is then loosened, and the weight of limb effects the extention by the carrying forward of foot-piece and counter-extension by back pressure of main frame at 10 on pelvic bearings. If the weight of limb is not sufficient, and no previous traction has been made, or in some cases of oblique fracture, extra pressure can for the moment be made upon splint and screw set at 8; or if the surgeon in any case be afraid of too much extension, he can at proper extension effect *flexation* by tightening set-screw 8, and can constantly compare measurement of limb.

The pelvic bearings in effecting counter-extension are of self-adjustment, do not gall, and by the open angles, circulation cannot be interfered with. The pressure can be regulated by angle at 12, and by elevation or lowering of head of bedstead.

[Note.—The first of these splints, made by John Sweeney, blacksmith, of Fort Lee, at cost of $2, was in suspension by tripod at meeting of New Jersey State Medical Society, 24th and 25th May, 1881, at Long Branch, and in its demonstration was commended by all. It has been examined and approved of by many practical surgeons, among whom are Drs. F. H. Hamilton and Sayre, who, if not agreeing upon other matters, both admit the perfections of this. One remark of Dr. Hamilton, after regretting that he had not seen Clendenen's splint, or a plate thereof, in time for publication and comment in his sixth edition, was that "for practical ingeniousness the *Southerner* (Dr. Clendenen) had certainly this time beaten the Yankee, who was generally characterized as *the* inventor."]—*Amer. Med. Bi-Weekly*, July 16, 1881.

The Danger of Using an Anæsthetic while Suspending a Patient to Apply a Plaster-of-Paris Jacket.—Dr. Lewis A. Sayre, of New York, in a communication to *Louisville Medical News*, of July 23, 1881, says:

"In your number of July 9th, I find the following:

Fatal Results from the Application of Sayre's Jacket.—The patient, a child, suffered from a considerable kyphosis at about the junction of the dorsal and cervical vertebræ. It was restless during the suspension; suddenly the breathing ceased. Immediate tracheotomy showed the trachea free down to its bifurcation, and consciousness could not be restored. The breathing was stertorous, and the child died one and a half hours after the suspension. The autopsy revealed a very marked angular curvature of the spine and a very large abscess reaching to the mediastinum.—*Sonnenberg—Proceedings of German Surgical Society, Deutsche Med. Woch.; Maryland Med. Journal.*

In the *Medical Record* of May 7, 1881, page 527, in a letter from Berlin ("from our Special Correspondent"), is a narrative of the proceedings of the German Medical Congress, and among other things he says:

Treatment of Spinal Disease.—Another subject which attracted much discussion was the old one of the treatment of spinal disease by the Sayre plaster jacket and the pliable felt corset. Several cases were exhibited where, after injuries to the spine and resulting paralysis of limbs, bladder and rectum, the patient had been treated by the application of a plaster or felt jacket, and great improvement had followed; paralysis of the bladder and rectum having disappeared, and the patient being able to walk with the jacket.

Professor Langenbeck said he always chloroformed the patient before applying the corset, that the muscles might be wholly relaxed, and used extreme caution lest serious or even fatal consequences might follow the suspension of the patient. He related a case in which a patient in his clinic had been suspended for the application of the corset, in which there was sudden cessation of breathing, and, though respiration was partially restored, the patient died in an hour, despite the performing of tracheotomy and artificial respiration.

The *post-mortem* examination showed that an abscess, which was situated in the angle formed by the sinking together of the eroded bodies of the vertebræ, had been ruptured by the suspension of the patient, and the pressure of the escaping pus upon the trachea, and possibly upon the nerves, had caused the cessation of respiration."

In the *International Medical Journal*, and in several other medical journals, I have seen a description of the same case, and they all refer to Professor Langenbeck as the narrator of the fatal case, and also quote his remarks about the use of chloroform during the suspension. I, therefore, take it for granted they all refer to this one case of Professor Langenbeck's, and I take the liberty of saying that the "fatal result" *was not* "from the application of Sayre's jacket," but from the *improper manner of making the suspension*, and which was done in direct violation of the rules I have laid down for its performance; and, therefore, my plan of treatment should not be held responsible for this death, and you have therefore no right to head your article "*Fatal Results from the Application of Sayre's Jacket.*"

In my work on *Spinal Curvature*, pp. 21, 22, will be found the following:

Before narrating the cases illustrative of the principles of treatment here advocated, I wish to give, or, rather, repeat a word of caution, fearing that I may not have enforced it with sufficient distinctness already. It is this. *Do not attempt the impossible*—do not try to straighten curved spines, the result of caries, that have become partially or completely consolidated. If nature has already thrown out ossific matter, and adhesions are beginning to take place, *do not break them up* by too severe extension, but simply extend the patient very slowly, so that the contracted muscles alone will yield, *until the patient says he feels comfortable, and never extend the patient beyond that point.*

If it is a child who cannot talk, watch his countenance, and as soon as the expression of *pain* is changed to one of *pleasure*, *there stop*, and *secure* your patient by the plaster bandages, keeping him in that position until the plaster has set; he will then retain this sense of comfort so long as the bandage is properly adjusted.

If the patient is under the influence of an anesthetic, it is impossible for him to give you the information desired—and no one else can. It should, therefore, never be used in the suspension of a patient suffering from Pott's disease under any possible circumstances.

There is no pain whatever given by the *proper* application of the suspension, and therefore no anesthetic is required to relieve it. On the contrary, the proper application of suspension gives immediate relief to the patient, and this is the invariable testimony of the many hundred cases in which I have employed it. I, therefore, assume the right to speak with some degree of positiveness on the subject.

At the meeting of the International Medical Congress at Amsterdam, in 1879, while practically demonstrating the treatment before the Association, I remarked: "I have learned that some surgeons administer an anæsthetic during the suspension. I think this practice extremely dangerous, and should most strongly condemn it." (See *British Med. Jour.*, Sept. 27, 1879.)

Notwithstanding the caution thus prominently given to the profession, it will be seen by the records of the German Medical Congress that some surgeons still persist in this dangerous practice, and medical journals in various parts of the world head their articles, in large type, 'Fatal Results from the Application of Sayre's Jacket,' when in fact the treatment is in direct violation of the principles I have endeavored to teach."

Skin-Grafting with Grafts Taken from the Dead Subject.—John H. Girdner, M. D., of New York, says, in *Medical Record*, July 30, 1881, Charles Joice, aged ten years, who lives in Morrisania, the latter part of June, 1880, while sitting on a door on which there was a steel hinge, was struck by lightning, and became comatose, in which condition he remained for several hours. He was brought to Bellevue Hospital and placed under my charge. When his clothes were removed the skin came off his left arm and scapula, leaving a large, raw surface. This surface was treated by different means for some weeks, until a healthy granulating surface was obtained all over the affected part.

About this time, a healthy young German, who had attempted suicide by cutting his throat, was brought to the hospital, and died within a few hours. Six hours after his death, I went to the dead-house and removed a portion of skin from the inner side of the thigh, where there was least hair, and the skin most delicate. Having cut this piece of skin into a great many small pieces, I applied them and dressed the surface after my own method, which is to apply first, next to the grafted surface, a piece of the green protective used in Lister's dressing; over this I strap the ulcer with ordinary rubber or adhesive plaster, and over the whole throw a roller loosely. The object of the green protective is to prevent the grafts from adhering to the plaster and from being torn off when the dressing is removed. The strapping is simply to make pressure, which must be firm and evenly applied.

After the dressings had remained on for four days, they

were removed, and after some little discharge had been washed off, I had the patient photographed. About one-fourth of the grafts had failed to take, and were washed off when the wound was cleansed. The remainder have attached themselves to the ulcer, and the lower and central portions of the ulcer on the arm are already covered with a thin, delicate skin, as a result of the fusing together of the little islands of skin, each graft serving as a point of departure for the formation of these islands. As in other and similar cases, cicatrization would have doubtless gone on to complete cure in a short time, but for an attack of erysipelatous inflammation, resulting from the low condition of the boy's general health, and his exposure to other cases of that disease, which destroyed a large portion of the newly formed skin, requiring subsequent graftings, but finally resulted in a cure, with much less of contracting cicatricial tissue than is commonly witnessed after recovery from such extensive burns.

Skin and mucous membrane removed from the living in surgical operations have been often used for grafts. But I wish to state here my claim, that the idea of removing skin from the cadaver and grafting it on to the living subject is original with me, and that I was the first to perform this operation, which has since been done many times successfully by other gentlemen. It seems to me that any one who has witnessed, as I have done repeatedly, skin taken from the dead body several hours after death return to life, adhere to a granulating surface, and with surprising rapidity send out prolongations of delicate skin in all directions, covering the surface with a new skin comparatively free from contraction, must agree with me that skin-grafting is in its infancy; and that when men of ability have given it more attention, and found out the possibilities of the proceeding, we may expect to see frightfully contracting cicatrices which follow burns and nævi removed by excision, and their places filled with a skin almost as perfect as the surrounding, and which has been removed from the dead or living body of another person.

Woman's Success as a Physician.—Miss Rachel L. Bodley, Professor of Chemistry and Toxicology in the Women's Medical College of Pennsylvania, at Philadelphia, in a recent address, gave some interesting statistics, showing the efficiency and success of woman as a practising physician.

In order to ascertain the work accomplished by the 276

graduates of the college, Miss Bodley prepared a list of questions, which were mailed to all the *alumnæ*, who were requested to respond. There were eight questions, designed to cover the whole ground of a life-work as to its professional character, its pecuniary rewards, social status, teaching, work, membership in medical societies, and the influence of the study and practice of medicine upon woman's relations as wife and mother. Of the 276 graduates, 189 responded; 32 were dead. Of 189, 166 stated that they were now engaged in active medical practice. Of the 23 who were not, 8 stated that they had retired therefrom on account of domestic duties, 1 to engage in philanthropic work, and 6 because of ill health.

The responses to the question as to the predominating character of the medical practice of those actively engaged, was: Gynæcological practice, 32; obstetrical, 10; medical, 10; surgical, 3; general practice, without discrimination, 37; gynæcological and surgical, 6; gynæcological and medical, 29; obstetrical and medical, 9; surgical and medical, 7.

The large percentage engaged in gynæcological practice would seem to indicate that many ladies preferred to be treated for strictly female diseases by a woman rather than a man.

In answering the question as to the compensation for their services, twenty-four reported receiving as much as $1,000 and less than $2,000 a year; twenty as much as $2,000 and less than $3,000; ten as much as $3,000 and less than $4,000; five as much as $4,000 and less than $5,000; three as much as $5,000 and less than $15,000; four between $15,000 and $20,000; of the seventy-six reporting, only ten had received less than $1,000. The average income of those reporting was $2,907.30. Do male physicians average as well? The four who are reported $15,000 or over are established practitioners. Three of the *alumnæ* reported having accumulated sums sufficient to permit them to retire from active practice.

Sixty-eight of these lady physicians are members of the county, State or other local medical societies—the most decisive recognition of their professional standing. Of these, four are in California, one in Connecticut, one in Delaware, four in Illinois, one in Indiana, three in Kansas, two in Massachusetts, five in Michigan, two in Minnesota, one in Missouri, one in New Hampshire, fifteen in New York, seven in Ohio, fifteen in Pennsylvania, three in Rhode Island, one in Tennessee, and two in Wisconsin.

As to the influence of a medical education upon the physician's domestic relations, as wife and mother, of the fifty-two married ladies responding, forty-five reported favorable, six not entirely so, and one unfavorably.

A number of these ladies have been employed as physicians in hospitals, as visiting physicians to girls' schools, as city physicians, and as professors and lecturers in medical colleges. One has been invited by the Dean of the medical department of the Iowa State University to accept the position of member of the Medical Examining Committee of the medical department of the Iowa State University.

Miss Bodley has done a good service for the cause of woman in preparing these statistics. They show that, when properly educated, women are not less efficient as physicians than men, and that there is a field ready for them to occupy, not only at home but especially in foreign lands, where, in most countries, male physicians are debarred by practices centuries old, from treating women. There are eight of the graduates of this college practising medicine in Asia. To one of them, Dr. Clara Swain, an Indian prince of Rampore presented a property worth 30,000 rupees for the establishment of a woman's hospital and dispensary at Bareilly, India. The outlook of woman as a physician is manifestly bright, and a few years hence it will be a matter of surprise that her education for that profession could have been so antagonized.—*Baltimorean*, July 9, 1881.

Case of Consciousness During an Epileptic Seizure.—C. W. Clark, M. D., Assistant Superintendent of the Asylum for the Insane, Hamilton, Ontario, reports the following case in the *Alienist and Neurologist*, July, 1881:

J. E. C., male, aged 42; very strong, healthy man. Has been an epileptic for more than thirty years, and an inmate of the asylum for two years. Before and after epileptoid seizures, is violent and dangerous. Had been free from an attack for nearly a month when the one reported took place. On passing through the wards on my "morning round," my attention was drawn to the patient, who seemed to be in a very peculiar condition. He was seated in a chair, and *appeared* to be perfectly unconscious. His muscular system was under no control, and he was suffering from clonic convulsions, which his attendant informed me had been kept up all morning (this was about 11 o'clock A. M.) The patient was placed in a bed and visited again in the afternoon. The convulsions still continued, with the difference that some of

them were not tonic in character. The violent muscular contractions caused him to grind his teeth, clench his hands, etc. The face was congested. There was no doubt about the seizure being *epileptic*, but the form of convulsion was so remarkable and unusual that the patient was visited many times during the day. The spasms ceased in the evening. Next morning the patient was worse, and refused food. In two days he went about as usual. Not long after that he came to me and asked if I thought he had been suffering with another attack of epilepsy. I said he had. He then told me that he was conscious during the seizure, and, to prove his assertion, detailed conversations which I had held with the attendant at the time of the attack. As he repeated correctly what had been said, and described accurately the positions we had stood in, there could be no doubt in regard to his consciousness during the seizure.

As might have been expected, the patient's muscles were very sore for some days after the attack.

In-growing Toe-nail—An old plan of treatment successful.—A lad, æt. 18, who had suffered from in-growing toe-nail all his life, and whose father and brother both suffered from the same cause, came under treatment in August, 1878. Various palliative measures were for a time successful, such as the excision of a V-shaped piece of the nail, rasping down the middle, stuffing with lint and bits of dried sponge. In the following January, I removed the whole nail, as it had become very painful, and a large granulating surface raised upon one side of it. In the following August, the new nail was just as ill-formed as the old one, and cut into the flesh on one side, producing the usual granulating ulcer.

I tried what I then thought a new and original plan. Having taken out of the nail as large a V-shaped piece as I could without wounding the quick, I bored holes in the free edges of the V and passed silver wires through them. With pincers the wires were tightened, drawing the outer edges of the nail away from the ulcerated surface. Underneath the latter were placed little wedges of sponge tent. The patient tightened the wires every two or three days and replaced the sponge tent. The greatest relief was afforded, and the nail has given him no more trouble. A few weeks ago I discovered that this plan of treatment was described and spoken favorably of in *Malgaigne's Operative Surgery*, and named the proceeding of M. Faye.—R. L. McDonald, B. A., M. D., in *Canada eMd. & Surg. Jour.*, May, 1881.

Fracture of the Nasal Bones Treated by a New Method.—Dr. Lewis D. Mason, Surgeon to the Long Island College Hospital, has reported a number of cases treated by his method, one of which is appended as illustrating the principle.

J. N. G. (aged 14), April 5, 1880, fell upon his forehead and face, sustaining a compound and comminuted fracture of nasal bones, with fracture of nasal processes of superior maxillæ.

April 6th, the patient was etherized, and a careful inspection of the fractured bones made. The nasal processes of both superior maxillæ were involved. The line of fracture of left was near the base of the process, on the right side near its middle. The bridge was very much depressed and flattened. The right nasal bone was lateralized to the right, and made a small puncture through the skin on that side. There was considerable œdema of eyelids, and the face was somewhat puffy. Viewed from either side, the deformity was very great, the end of the nose seeming to be at right angles to the depressed bridge.

After elevating the depressed fragments, and overcoming the deformity as much as possible, in the usual manner, Dr. Mason passed an ordinary surgical needle (ground to a drill point) through the line of fracture on either side, thus supporting the nasal arch. To complete the dressing and give it further stability, a piece of thin rubber about an inch wide was slipped over the head and point of the needle, and rendered moderately tense, so as to exert a gentle compression. Small pieces of cork were placed on the head and point of the needle to protect the face. The patient was placed in bed, and evaporating lotions of an agreeable temperature applied over the dressing. The case progressed favorably, and on the eleventh day the needle was easily removed without an anæsthetic, and without pain to the patient.

The cicatrix, if any, will be scarcely noticeable. The contour of nose is excellent over site of needle; a slight periosteal thickening renders the bridge of nose a line or so too prominent, but this is observed only on close inspection, and will undoubtedly in due time be absorbed. At no time subsequent to the operation was there any pain or uncomfortable sensation at the site of the needle, nor did its removal cause any suffering. The result may be said to be perfect.—*Ohio Med. Jour.*, August, 1881.

To Prevent Pitting in Variola.—From a paper by George Garrick, read before the Saint Petersburg Society of Practising

Physicians, translated by Dr. Ralph D'Ary, of Romeo, Mich., for the *Physician and Surgeon*, July, 1881, we quote:

The treatment of the pustules may be divided into the surgical and the therapeutic. The former is applied to the pustules separately, and consists in puncturing, opening and cauterizing them. The latter consists in the application of various masks, solutions, and aspersions.

The puncturing or opening of the pustules, with a view to prevent pitting, was practised by the early Arabian physicians since the time of Al-Rasi, and later by Marguard, Fortis, Holland, Sidobre, Senac, Tissot, de Haen, von Swieten, and Wintringham; and was much opposed by Diemerbroeck and Ludwig. Of course these methods are inapplicable in those cases where the danger of pitting is greatest—those of confluent small-pox.

The favorite remedy for cauterizing the separate pustules was nitrate or silver. Velpeau, for instance, recommends to open every pustule on the third or fourth day and to cauterize it with sharp-pointed pieces of this caustic.

Higginbotham, on the third day after the appearance of the eruption, applies a solution consisting of

℞. Argenti nitratis..... ℈viij.
Aquæ..... ℥j.

Marson objects to this solution as too strong.

Alex. Howard, of Quebec, uses only one drachm of the silver nitrate to the ounce of water, and finds that it relieves the heat, itching, and intolerable sensation of distension.

Skoda applies compresses wetted with solutions of corrosive sublimate, with favorable results.

The effect of all these applications is the same—they coagulate the contents of the pustules and cause them to abort in that way, but frequently, also, they fail.

At one time—and perhaps even yet—the favorite remedy in the Paris Hospital for children was the mercurial plaster, a modified and simplified emplastrum picis cum murcurio, as follows:

℞. Mercurial ointment..... 25 parts.
Yellow wax..... 10 parts.
Plack pitch..... ... 6 parts.

M.

Marson praises this preparation, especially in cases of variola semi-confluens. But as the latter, even without any local treatment, sometimes leaves hardly any traces, and, as in the case of children, even rather deep pits disappear in course of time—partly owing to the growth of the skin,

partly to an increase of its elasticity—it is doubtful whether the favorable results of similar cases should really be ascribed to any one remedy used. Al-Rasi, for instance, has left us a long list of prescriptions for various unguents and plasters for the prevention and cure of small-pox pitting, but in practice they have all proved worthless.

How great is the uncertainty of clinicists as to what is the best remedy in these cases, may be inferred from the fact that Niemeyer, with remarkable impartiality, advises the application of cold as well as of the mercurial plasters.

The opinions of such authorities as Gregori and Marson, who have spent over thirty years in the London Small-pox Hospital, or of the famous Vienna professor and dermatologist, Hebra, are worthy of our attention. The latter believes all plasters and astringents to be useless, and employs only cold compresses. This plan is commended by Dr. Kurschmann, who thinks that "cold and moisture seem to be the most effective remedies in the treatment of the eruption.

Dr. Marson generally waits until the pustules burst and the exuded matter has dried, when he applies, twice a day, and until the crusts begin to detach themselves, either simply the best olive oil, or a mixture of one-third of glycerine and two-thirds of rose-water. Sometimes he uses cold cream, or zinc ointment, or a mixture of olive oil and lime-water.

Dr. Gregori, however, seems to have lost all confidence in any local treatment, and advises *fresh air* and "any dry powder." He writes: "All endeavors to prevent pitting by means of various masks will prove fruitless."

Dr. George makes some remarkable statements concerning the effects of powdered camphor applied to the face.

When we inquire into the mode of action of the majority of the above remedies, we find that they shield the pustules from contact with the air, and that some exclude the light also. And as it is proved that light and air very decidedly favor the development of the pustules, the above remedies must be successful so far as they succeed in excluding both.

Dr. Copland, for instance, says: "From personal experience I am fully convinced that absolute darkness prevents pitting, and that light favors the purulent secretions in the pustules, and thereby causes deep and permanent pitting."

The masks, besides excluding the light and air, also exert a certain amount of pressure on the pustules, which also lessens the secretion.

But how can we account for those contradictory facts, that sometimes the pitting is hardly noticeable even in cases of

confluent variola, while at other times very mild cases of variola discreta leave rather deep pits?

Dr. Kurschmann endeavors to explain this circumstance in the following words: "However, we can never with certainty promise a prevention of deep pits In those cases where the pox is limited mainly to the epidermis, there naturally do not follow any very noticeable or long enduring pits; but *where the papillary layer actively participates in the purulent inflammation*, the nitrate of silver cannot prevent loss of tissue."

Dr. Moritz Kaposi substantially says the same, viz: "In our efforts to prevent pitting we must not forget, that the deep-seated pustules *eo ipso* are accompanied by putrefaction in the papillary layer, and that therefore in all such cases there will remain scars, whilst the pustules limited to the rete will heal without a scar."

From a practical point of view it is impossible to agree with these explanations of Drs. Kaposi and Kurschmann. It is difficult to imagine that slight cases of variola discreta should attack the papilla; and yet we find that sometimes rather deep and permanent pits follow this lightest form of the disease. On the other hand, it is equally difficult to accept this explanation in cases where after very virulent confluent variola, hardly any pitting is noticeable; for, if the papillæ are attacked and destroyed at all, they certainly must be in those malignant cases.

We cannot admit the explanation, that the papillæ may be attacked in a light case of the disease, or may escape in a grave one. For we cannot ignore the maxim, which as yet stands undisputed, that *the intensity of variola is measured by the abundance of the eruption*. The varying relation of the degree of pitting to the quality and quantity of the eruption, I think, can be explained in a simpler manner, by the different degrees of elasticity of the skin in various subjects.

Every surgeon knows how great is the difference in the scars remaining on the faces of different people after similar operations or wounds, although their skins in appearance are alike. The same is the case with the scars of variola—on some skins it leaves deep pits, whilst in others they are hardly noticeable. I would also remind you, that the variolar eruption at first is vesicular, and that in this stage it is easier to abort it.

In order to abort the pustules there is required: (1) a pressure upon them from without; (2) a certain elasticity of

the material exerting the pressure, in order that the pus should not press too much upon the underlying parts; (3) exclusion of air; and (4) exclusion of light.

All these requirements are completely met by a solution of rubber in chloroform—a means invented and employed in the Edinburgh Clinic in 1863, by my fellow student, Dr. Andrew Smarth. Many years before, Graves, of Dublin, had suggested a solution of gutta-percha in chloroform, but he found no followers, as gutta-percha cracks very easily and is not elastic. The same may be said of collodion, which, moreover, transmits the light.

Dr. Smarth's solution is prepared as follows: Take of best rubber, cut into very small pieces, and put them into a four-ounce vial, half full of chloroform. Put in as much as is necessary to fill three-quarters of the phial with the mixture. Shake the bottle every hour, until the rubber is dissolved, forming a thick fluid, like molasses. The face is painted with this solution by means of a very soft brush. The chloroform evaporates speedily, and the face remains covered with a rubber coating. At first the mask is light gray and slightly transparent, but in a few days, on account of the super-applied new layers, it becomes black and opaque. The painting is begun as soon as the eruption makes its appearance, and is done from three to five times a day, until the crusts begin to detach themselves on other parts of the body. Wherever it is noticed that the rubber coating has given way and the pus oozes out, a new coat is immediately applied. It is indispensable that the chloroform and rubber should be of good quality, or else the solution will be oily, without compactness or elasticity. I myself have never used any other local means, but I have seen the results of local treatment by means of various ointments, masks, nitrate of silver, and, worse than all, the cold compress of Hebra, and I must give preference to the method of Smarth, since no other treatment can approach it in efficacy.

It, moreover, completely allays the itching which is so tormenting to the patients.—*Vratsh.*

[Translator's Notice.—Dr. Carrick here cites many cases from practice, in illustration of the superiority of the rubber mask over any other application, which we omit. But we must mention the case of one of his patients, of whose face, for the sake of experiment, he covered but the one-half, which remained perfectly smooth, whilst the uncovered part was deeply pitted.]

A New Method of Combatting with Insomnia.—Professor Hoppe, in the *Journal D'Hygiene* (April 7, 1881), mentions a plan of treatment of insomnia, which he has frequently found successful. It consists simply in rapidly closing the eyelids, twenty or thirty times in succession, and thereby causing fatigue of the depressor palpebræ muscles; this will be followed in a few seconds by an irresistible desire for sleep. The professor recommends this treatment more especially in that form of insomnia which accompanies nervous diseases. *Cincinnati Lancet and Clinic*, July 30, 1881.

[This suggestion must be the remembrance of a grandmother's advice. Certainly in Virginia, we have heard of it "from the time before the war." "Several" of our patients have faithfully followed the directions—in substance, like the above. Some have and some have not got the "rest" desired. But in view of "the method," we will recommend it again.—EDITOR.]

Infantile Menstruation.—Dr. H. P. Sanders, of Stewartsville, Mo., in the *Medical Brief*, August, 1881, says that he has been a practising physician for forty three years, and has met with many different cases in his practice; and has met with three that menstruated in infancy. His first case was about seven years ago; the second one year ago, and on May 21, 1881, he was called to see Mrs. E. W.; after some four hours she was delivered of a bright little girl. All did well. On the third day, menstruation began, and continued for three or four days, about one-quarter ounce per day. He saw the child every day for several days; no treatment was given; all went on well. He has never given any treatment in any case that he has had.

Paracentesis of the Pericardium.—Dr. P. C. Gaston, Athens, Ala., reports the following case in the *Nashville Journal of Medicine and Surgery*, July, 1881; On April 5, 1881, I was called to see Mr. Alfred Carter, aged forty seven years. His breathing was rapid and labored; he stated that for two months he had been unable to lie down; for near two years he had suffered some pain in the region of the heart. Physical examination of the chest revealed a large accumulation of fluid in both pleural cavities. The cardiac area of dullness was increased considerably. The diagnosis made was dropsy of the chest with effusion in the pericardium. To relieve the urgent symptoms I withdrew with a hypodermic syringe several ounces of straw-colored fluid. The needle

was introduced just below the apex of the heart, the movements of which could be distinctly felt at each pulsation, giving clear evidence that the pericardium had been entered. The relief experienced was immediate and very marked Two days afterwards, assisted by Drs. Theo. Westmoreland and W. J. Dupree, with an aspirator I removed nearly thirty ounces of fluid from the chest. He was then ordered—tinct. digitalis 10 drops every 4 hours; calomel gr. 10, jalap gr. 10. Make 4 powders. One every 2 hours followed by teaspoonful doses of cream of tartar. As a tonic he was ordered compound tincture of cinchona, with muriatic tincture of iron 3 times per day. His improvement was marked so long as he kept up the treatment, which was for a week, after which time he failed to obtain medicine, owing to his poverty. The fluid speedily accumulated again at the expiration of four weeks, and he died. There is no doubt in my mind, had he used medicine as directed he would have recovered.

The Causes and Treatment of Pruritus Vulvæ.—In a clinical lecture on this subject (*British Medical Journal*, Vol. I, 1881, p. 327) Dr. Wiltshire mentions the animal and vegetable parasites as frequent local causes of this condition. Ascarides, pediculi, and acari are among the former, and certain low forms of vegetable life, as thrush fungus (*oïdium albicans*), among the latter. Among other local causes we have—1. Diseases of the vulva (as vulvitis, abscess, carcinoma, oozing tumor, lupus, elephantiasis, etc.); 2. Diseases of the urinary system (urethra, bladder, and kidneys); 3. Vaginitis (gonorrhœal and other); 4. Diseases of the uterus (metritis, endometritis, senile catarrh, cancer, fibroids, polypi, acrid discharges arising from the foregoing or occurring mainly in association with menstruation; 5. Skin affections (eczema, ecthyma, herpes, urticaria, acne, etc). As regards the latter, eczema may be associated with diabetes, producing terrible suffering, while urticaria suggests ovarian disease. Ecthymatous spots with ashen-gray bases may indicate grave cachexy (syphilitic?); while the herpetic vesicles are prone to crop out periodically in females of gouty parentage just before each menstrual period. A pustular form of acne is sometimes accompanied by troublesome itching. Venereal warts may excite itching.

Malignant disease of the uterus and upper part of the vagina may provoke itching in two ways: First, by acrid discharges; and secondly, reflexly—the latter uncommonly. The same may be said of fibroids, polypi, sarcomata, etc.

Dr. Wiltshire has known pruritus to exist for a long time apparently as a consequence of pelvic effusions, *e. g.*, hæmatocle, cellulitis, partly, perhaps, from venous obstruction and partly from implication of nervous structures. Some discharges from the womb are virulently acrid, and excite excoriation of the parts over which they flow. These are revealed by the speculum. Urethral and vesical affections—*e. g.*, vascular growths, stone, incontinence, etc.—are sometimes complicated by vulvar itching. Careful local investigation is therefore necessary; for, even when some general condition, as diabetes, is present, the local condition may give valuable information.

Among general causes we find diabetes, pregnancy, gout (or lithiasis), syphilis, and pruritus senilis. Diabetes is not an uncommon cause, and vulvar pruritus may be one of the first symptoms which lead to its detection. Pregnant women are liable to a severe form of pruritus vulvæ, accompanied usually by an abundant creamy discharge. Sometimes aphthæ or erosions are seen upon the turgid labia or cervix, or there may be vaginitis granulosa. Most of the cases which Dr. Wiltshire has seen have been accompanied by extreme venous turgescence. Gouty pruritus is apt to be brought on by indulgence at the table or any diet which increases the deposit of lithates in the urine. Chancres and venereal warts [which last Dr. W. apparently considers syphilitic.—Ed.] may provoke irritation. Pruritus senilis is often associated with general cutaneous hyperæsthesia. Klob says there are little elevations of the skin, like goose flesh, consisting of growths analogous to tubercular formations, and giving rise to violent itching. These cases are grave. Some are amenable to the bromides used locally as well as internally. Arsenic and cod-liver oil are also indicated.

All forms of pruritus vulvæ are subject to periodical exacerbations. Some patients suffer only at night, after becoming warm in bed, experiencing comparative freedom during the day. All who menstruate are conscious of aggravation at that time. Stimulants, as a rule, exert an injurious effect. Sedentary occupations, piles, and hepatic disorders aggravate pruritus.

In the Treatment of Pruritus Valvæ, Dr. Wiltshire says that the first thing is to find, if possible, the cause. Extreme cleanliness must be enjoined. Demulcent washes are better than soap, unless carbolic or coal-tar soap be used; and usually even these are inadmissible. Almond meal, strong

bran-water, decoction of rice, marsh-mallow, slippery elm, or fine oat meal are suitable, especially the first, which, if pure, yields during use a marked odor of hydrocyanic acid and appears to soothe materially. When the pruritus is due to animal parasites, ointment of white precipitate, sulphur, or stavesacre speedily cures by destroying the insects and their ova. If nits persist about the pubic hairs, a lotion containing bichloride of mercury and acetic acid will dissolve them. Ascarides are destroyed by a carbolic lotion (1 to 60): general treatment, however, should be used, as iron, quinine, cod-liver oil, together with enemata of hamamelis, lime-water, iron, etc.

The vegetable parasites are treated by washes of borax, boracic acid, sulphurous acid, etc. Parasiticide lotions are certainly the most useful in the majority of cases, which points towards vegetable organisms as the commonest cause of the pruritus. The borax lotion should be of the strength of a drachm to five ounces of warm water, or stronger; hydrocyanic acid, say ℥j of the dilute acid to water ℥x, or morphia (2 gr.), atropia (½ gr.), aconitia (½ gr.), or veratria (½ gr.) to the same amount. Infusion of tobacco (half an ounce to the pint) alone relieves some cases, and forms a good vehicle for borax or boracic acid. It is not well to use glycerin with the borax, as a rule, as it is apt, owing to its affinity for water, to aggravate the irritation. Strong solution of poppy is a good vehicle for borax. Chloral frequently does not suit. Ice suits some, very hot water others. In some cases ether spray might be tried. Ointments, if used, should be of non-rancid fats or cosmoline. Two drachms of iodine [tincture?] in two ounces of elder-flower water sometimes answers. Electricity may afford relief in neurosal cases. Probably faradism would be the preferable form.

In simple vulvitis, borax or carbolic-acid lotions relieve. An ointment of calomel or bismuth is also good. Malignant affections of the parts call for ablation, but where this is not practicable sedative applications (conium, opium, belladonna) alone are often all that we can employ.

Of course urethral caruncles, urethritis, vaginitis, etc., should receive thorough treatment. When there is congestion with loading of the portal circulation, a mercurial and saline purge is helpful. When eczema with fissure is present, a poultice made of the clot formed by adding two drachms of lead-water to ten ounces of new milk is most useful. Diabetes must of course be combated, and frequent ablutions with borax washes form a good local treatment. In wake-

fulness from diabetic pruritus, codia in one-grain doses in pill is often useful. The bromides are also useful.

Pregnant women often suffer terribly. When *oïdium albicans* is present, sulphurous acid gives relief. A tablespoonful should be freshly mixed with half a pint of warm water, barley-water, or almond emulsion for each application. Chloroform locally, in liniment, ointment, lotion, or vapor, answers well occasionally; bichloride of mercury, gr. iv, ad ℥viij mist. amygdalæ, gives relief in some cases. It should not be used when there is abrasion. Section of the pudic nerve has been suggested in desperate cases, but has never baen practised.—*Philadelphia Medical Times*, May 7, 1881.

Long Menstruation —Dr. E. W. Lane, of Scarboro, Ga., reports for the *Medical Summary*, July, 1881, a case which has been under his observation for twenty-five years. A lady married in 1830, then twenty one years of age. Suffered occasionally from hysteria, otherwise had excellent health. She commenced to menstruate when about fourteen years of age, and continued to menstruate regularly until 1878, at which time she was in her sixty-ninth year. Then her menses became irregular, sometimes missing two or three months, and at other times coming on too often. This irregularity continued until 1880, when the menses stopped entirely. Dropsy set in, and in April last, when seventy-one years of age, she died, having menstruated regularly fifty-five years of her life. A thorough examination disclosed nothing unusual in her genital organs.

Impotency—Nocturnal Emissions.—Dr. George Weaver, in the *New York and Chicago Medical and Surgical Journal*, July, 1881, says he is charmed with the effects of celerina (Richardson, St. Louis) in nervous and sexual debility. It is simply the most efficient nerve tonic in the materia medica. He has treated several cases of impotency that had sorely tried his patience, with complete success under the use of celerina, in teaspoonful doses, four times a day. From experience, he says that the following combination will give perfect satisfaction in the treatment of nocturnal emissions:

℞. Celerina..... ℥iij
Bromidia..... ℥j

M. S.: One teaspoonful three times in water or syrup.

This will stop the emissions, strengthen the sexual organs and build up the nervous system at the same time.

The following—**Differential Diagnosis of Fractures and Dislocations of the Femur at the Hip-joint,** tabulated by H. Augustus Wilson, M. D., of Philadelphia; Lecturer on Fracture-Dressing in the Philadelphia School of Anatomy; Ophthalmic and Aural Surgeon to St. Mary's Hospital—we find in the *Annals of Anatomy and Surgery*, 1881:

	INTRA-CAPSULAR FRACTURE.	EXTRA-CAPSULAR FRACTURE.	ILIAC DISLOCATION.	SCIATIC DISLOCATION.	PUBIC DISLOCATION.	THYROID DISLOCATION.
I. Age.	Most apt to occur in advanced life, after 55 years.	May occur at any period of life.	Adult life.	Adult life.	Adult life.	Adult life.
II. Cause.	Usually result of *slight* cause.	Usually caused by *direct* and *severe* violence.	Always produced by *severe* violence.	Produced by *severe* violence.	Produced by *severe* violence.	Produced by *severe* violence.
III. Condition of Limb.	*Shortening;* at first is *slight*, but apt to *increase* to 2 to 2½ inches. Is readily *effaced* by extension and counter-extension, but *recurs* the moment the force is discontinued.	Great *shortening* at first; and continues about 1½ to 2 inches. May be *effaced*. but *returns* upon discontinuance or force.	*Shortening* 1½ to 2½ inches. *Only effaced* by reduction. Does *not then return.*	*Shortening* ½ to 1 inch. *Only effaced* by reduction. Does *not then return.*	*Shortening* ¾ to 1 inch. Only effaced by reduction. Does *not return.*	*Lengthening* 1½ to 2½ inches
IV. Crepitation.	Crepitation indistinct.	Crepitation very distinct.	No crepitation	No crepitation.	No crepitation.	No crepitation.

V. Mobility.	Preternatural Mobility.	Preternatural mobility.	Immobility Limb in a fixed, constrained position.	Immobility. Limb in a fixed and constrained position.	Immobility. Limb in a fixed and constrained position.	Immobility. Limb in a fixed and constrained position.
VI. Position of Knee.	Everted.	Everted.	Overlaps its fellow.	Inverted.	Everted.	Stands out and away from its fellow.
VII. Position of Foot.	Strongly everted.	Everted.	Inverted; big toe pointing toward opposite tarsus.	Foot inverted; big toe pointing towards great to of opposite side.	Everted.	Straight.
VIII. Position of Great Trochanter.	Moves freely with leg, as it were, on a pivot.	Preternatural mobility.	Higher than normal.	Higher and further back than normal.	Higher and nearer median line in front.	Lower than normal.
IX. Position of Gluteo-Femoral Crease.	Nearly normal.	Higher than normal.	Higher.	Higher.	Higher.	Lower.
X. Position of Head of Femur.	Cannot be distinguished except in very thin persons.	Cannot be felt.	Can be distinctly felt on dorsal surface of ilium.	Is buried in sciatic foramen; cannot always be felt.	Easily felt over pubes.	Is in thyroid foramen. Can sometimes be felt.
XI. Vacuity.	No vacuity over acetabulum.	No vacuity.	Vacuity.	Vacuity.	Vacuity.	Vacuity.

The Transplantation of Bone.—The greatest discovery in surgery, thus far in the year 1881, is that of Dr. William MacEwen. He has successfully transplanted bone—fragments of wedges of bone taken from patients for curved tibiæ—into the arm of a child whose limb was useless by reason of extensive necrosis; two-thirds of the humerus had been destroyed and no repair of bone had taken place. A good new humerus was the result, less than an inch shorter than its fellow.—*Proc. Med. Soc., Co. Kings*, August, 1881.

Remedies for Gonorrhœa.—Dr. L. H. Washington contributes the following to the *St. Louis Eclectic Medical Journal*, for May, 1881:

The following prescription, if used early in the disease, comes about as near being a specific as can be found: Chloride of zinc, 12 grains; glycerine, 1 drachm; rose-water, sufficient to make 4 ounces. Mix. Inject carefully, and hold in the urethra a minute or two, every 2 to 4 hours, after urinating; continue several days to insure a cure. If the case is old and obstinate, or the patient nervous and debilitated, use also: Bromide of potassium, 2 drachms; fluid extract wild cherry, 2 ounces; sweet spirits of nitre, 1½ ounces; distilled water, q. s. to make 4 ounces. Mix. S.: Teaspoonful two or three times a day, or oftener, as indicated by the kidneys and nerves.

When a case of gonorrhœa can be seen in the first twenty-four hours of the attack, the following will frequently cut it short in one day: Chloride of zinc, 1 grain; water, 1 pint. Inject every hour.

Pulverized cubebs, 6 drachms; bicarbonate of soda, 5 drachms. Mix. Divide in 12 powders. Dose: One powder in water three times a day. An excellent prescription.

Calomel, 2 drachms; powdered gum-Arabic, 2 drachms; aqueous extract of opium, 6 grains; sulphate of zinc, 6 grains; acetate of lead, 10 grains; water, 8 ounces. Mix. Wash the urethra out with a syringeful of water; follow with one or two syringefuls of the wash, holding the penis erect, and retain it in the urethra a minute or two, and repeat frequently. Cures in a few days.

Sulphate of atropia, ½ grain; sulphate of zinc, 2 grains; distilled water, 6 ounces. Mix. Inject three times a day.

Balsam copaiva, 1 ounce; liquor potassæ, 2 drachms; extract of licorice, ½ ounce; sweet spirits of nitre, 1 ounce; syrup acacia, 1 ounce; oil of gaultheria, 16 drops; compound tincture of cardamon, 2 drachms. Mix. Dose: Tablespoonful after each meal.

Tincture cannabis Indica, 2 drachms; tincture gelseminum, 2 drachms; water, 4 ounces. Mix. Teaspoonful every three hours.

Sulphate of morphia, 6 grains; solution of persulphate iron, 2 drachms; lard cerate, 3½ drachms; oil theobroma, 1½ ounces. Make into 12 vaginal suppositories. Use one every other night. This is for female gonorrhœa; said to cure in nine days.

Persulphate of iron, 20 grains; pure water, 6 ounces. Mix. Inject the urethra thoroughly twice a day, being careful to press the solution well back toward the bladder.

Subnitrate of bismuth, 2 drachms; glycerine, 4 drachms: rose-water, 5½ ounces. Mix. Shake well before using. Inject about a fluid drachm—morning, noon, and about 5 or 6 o'clock. The bladder should be emptied before injecting.

Balsam copaiva, 1½ ounces; tincture of muriate of iron, 2 drachms; tincture of cantharides, 2 drachms; gum Arabic syrup, sufficient to make four ounces. Mix. S.: Tablespoonful three times a day.

Solid copaiva, powdered cubebs, each, ½ ounce; white turpentine, 20 grains; confection of roses, 1 ounce. Mix. S.: Teaspoonful three times a day.

Syrup of stillingia, 4 ounces; balsam of copaiva, 1 ounce: iodide of potassium, 2 drachms. Mix. S.: Teaspoonful three times a day. Inject with: Distilled water, 1 ounce: permanganate of potash, 20 grains. Mix: Use three times a day after urinating.

Compound syrup of stillingia, 4 ounces; oil of sandalwood, ½ ounce; balsam of copaiva, 1 ounce; iodide of potassium, 2 drachms. Mix. S.: Teaspoonful three times a day.

Balsam of copaiva, 3 ounces; sweet spirits of nitre, tincture of kino, each, ½ ounce; morphia sulphate, 4 grains; camphor-water, 2 ounces. Mix. S : One teaspoonful three times a day.

Tincture of cannabis Indica, tincture of gelseminum, oil of yellow sandal-wood, oil of eregeron, each, ½ ounce; simple syrup, 2 ounces. Mix. Dose: Teaspoonful three times a day.

Oil of yellow sandal wood, 1 ounce; gum-Arabic mucilage, 1 ounce; simple syrup, 2 ounces; essence of gaultheria, 2 drachms. Mix. S.: Teaspoonful three times a day.

Chamomile flowers, 4 ounces; carbonate of soda, 6 ounces: tobacco leaves, 2 ounces; boiling water, 2 gallons. Mix. Let it stand two hours; add half an ounce essence of peppermint, and strain through muslin. Of this, one-third or one-

fourth of a cupful is to be added to sufficient hot water to fill the cup, and used as an injection three times a day. For gonorrhœa in females.

Bromide of potassium, 1½ drachms; glycerine, 2 drachms; distilled water, 5 ounces. Mix. Inject every four hours. Bromide of potassium, 20 grains in water, is also to be taken internally three or four times a day.

Apnœa Infantum, a clinical lecture by W. T. Plant, M. D., Professor of Diseases of Children, etc., Syracuse University, New York, on this subject, is worthy of a full record. It was contributed to the *Obstetric Gazette*, July, 1881.

Gentlemen,—In the practice of midwifery, you will now and then meet with instances of suspended animation on the part of the neonatus. As the head emerges from the vulva there is not the usual outcry and gasping for breath. The mother and the attendants anxiously await some sign of life, for a still-birth is commonly regarded as a calamity. It is a fact that many women who are disappointed early in their pregnancies that they court abortive measures, become, at length, reconciled, and, as gestation advances, look forward to the hour of delivery with the most pleasing anticipations. Sometimes, too, the only hope of a family for its continuance to another generation, rests with this one expected heir. So, from one cause and another, a still-birth is commonly regarded as a deplorable circumstance.

In this state of breathlessness, or apnœa, as it is called, it is a great thing to know just what to do, and how to do it. We shall be more likely to adopt an intelligent treatment, if we first reflect on the causes that may give rise to this condition.

These are various:

1st. The entrance ways to the air-tubes of the child may be closed by blood and mucus; or, it may be lying with its face in the maternal discharges.

2d. The umbilical cord may be wound once, twice or thrice around the child's neck, and drawn so taut that respiration cannot go on. If the cord happens to be longer than usual, it is quite apt to be disposed of in this way.

3d. Compression of the cord during labor. In presentations by the breech, or lower extremities, the body being born before the head, eviculation through the cord may be cut off by pressure before the labor can be ended and air admitted to the child's lungs.

4th. Compression of the fœtus and placenta during labor,

by long continued contractions. This is an ever-present danger in severe labors, and in all labors in which ergot is injudiciously used. Ergot is a remedy of great value, but I think that its misuse in the lying-in room has sometimes killed the child.

5th. Compression by instruments. In forceps deliveries that have required the exercise of much strength in extraction, the child is frequently born in a condition of suspended animation.

6th. Hæmorrhage, as from placenta prævia, or from detachment of the placenta in whole or in part before the completion of labor. If the bleeding is at all copious, the child is quite likely to be still-born through loss of blood.

7th. Premature delivery. An untimely birth is apt to be a still-birth. Those occurring in the first half of gestation are always so. The more nearly the term is completed the better the prospect for a living child.

Such are the usual causes of apnœa infantum. You will meet with some cases in which the cause is unascertainable.

A babe in this condition of apnœa may be livid-cyanotic, with projecting tongue and protruding eye-balls, or it may be pale. The cause will determine the color, hæmorrhage producing paleness—lack of oxygenation, as by interference with the circulation through the cord, causing lividity.

Treatment.—In this condition, if our treatment is of avail, we must act promptly. Not much time is to be used in searching for the cause of the apnœa. Perhaps the infant may be already past resuscitation. No matter! You cannot know it unless putrefactive changes have begun. If you do not make prompt endeavor to establish respiration, the friends will never pardon you—perhaps you will never pardon yourself.

What, then, will you do? If the cord is around the neck, remove it; next, pass your little finger between the lips and into the mouth, clearing away any mucus that might serve as an obstruction to the entrance of air. You may at the same time gently touch the soft palate and epiglottis; this will sometimes excite respiratory movements. You may next dip your hand into cold water and briskly sprinkle the face and chest. This sudden application will often rouse the sleeping energies of the infant and make it gasp for breath. Some apply irritant liquids to the chest, as vinegar or whiskey.

I knew a German midwife in the Fifth Ward of this city whose treatment was to take a mouthful of whiskey and

forcibly eject it over the face of the child, rubbing it well in. I think this a good measure, though, some male practitioners, having tasted the liquid, would part with it most reluctantly.

It is good practice also to dash the chest alternately with hot and cold water. While you are doing these things, you may make frequent and gentle pressure over the lower part of the chest—an imperfect imitation of respiratory movement.

If you have reason to think that nervous congestion is the cause of the apnœa, you may divide the cord and let a teaspoonful or so of blood flow from it. I think, however, that this measure can seldom be necessary, for if the congestion is due to pressure upon the child or cord, it should soon disappear, now that the child is born and the compression at an end.

If, after a fair trial of these means the infant does not breathe, it is very likely dead. But do not yet relax your efforts. There are more things to be done before you are excusable in abandoning the case as hopeless. You may now divide and tie the cord, if you have not previously done so. If there is warm water and a bath tub at hand, you may drop the infant into a warm bath. After a moment lift it out again, so that the surface shall be exposed to alternations of temperature. If the child does not gasp soon, do not waste time with the bath, but lay the child on a table previously covered with a folded blanket, and address yourself at once to the performance of artificial respiration. There are a number of ways of doing this—all good.

One of them is the direct inflation of the lungs. It is done in this way: Place one hand upon the epigastrium of the infant and make pressure. Then, with your lips closely applied over its opened mouth, blow a full breath. Most of the air of course goes down the œsophagus, and, without pressure over the stomach, you would inflate that organ and the intestines also. Probably some air enters the trachea and passes on to the pulmonary cells. The chest is then to be compressed to force the air out. This inflating process may be repeated ten to fifteen times a minute. I never tried this way. It may be a good way; some writers speak well of it, but it cannot be otherwise than unpleasant to apply one's mouth to that of a newly-born, unwashed child. If I thought this better than other methods of artificial breathing, I should want my nurses carefully instructed in the manner of its performance. To be sure, the inflation might

take place through the instrumentation of a tube, but usually no tube is at hand, and time is precious.

Quite as effectual, and less repugnant, are the methods of Dr. Marshall Hall and Dr. Sylvester. These are in common use, and you will find the manner of doing them described in many books.

For myself, I am partial to the "Speedy Method" of Prof. Harvey L. Byrd, of Baltimore. I will describe the manner of performing it. Place your hands, palms upward, under the infant's back one at the upper, and the other at the lower part. Spread the hands so that the little fingers meet in the middle of the back, while the thumb and forefinger of one hand support the neck and head, and the same digits of the other hand grasp the outer thigh, the inner thigh lying over the forearm. Now depress the radial borders of the hands, thus lowering the head and shoulders and the abdomen and inferior extremities. This answers to inspiration. After a proper interval elevate them to a sharp angle, forming a concavity of the chest; this is expiration. Continue these movements regularly while an attendant sprinkles the thorax frequently with cold water. The temperature of the room in which these efforts are being made should be so warm as to prevent the child from being chilled.

If the infant does not breathe by the time you have practiced artificial respiration twenty or twenty-five minutes after any of these methods, I think you may regard further effort useless.

Therapeutics of Gelsemium.—During the discussion of Dr. L. Duncan Bulkley's paper on this subject, which was read before the New York Dermatological Society, and published in the January number (1881) of the *New York Medical Journal*—which discussion is reported in full in the August (1881) of the same journal—Dr. Piffard thought that great care should be taken in ordering the tincture, and that, on account of its lack of uniformity in strength, it was a very dangerous preparation to prescribe. He presented several specimens of the tincture, ranging in strength from 1:5 to 1:2. He mentioned other remedies that he had found to have an atipruritic action, such as aconite, protiodide of murcury, jaborandi, and caladium. The last named had given the best results, although the effect of pilocarpine had been very prompt and decided, and he thought the latter drug was safer than gelsemium.

Dr. Fox, after having used, without much benefit, a strong

solution of carbolic acid, bromide of potassium, and a mixture of camphor and chloral, in a case of psoriasis, in a patient seventy-two years of age, had resorted to gelsemium (Keith's tincture) to allay the intense itching. The following results were obtained: Ten drops produced no effect; fifteen drops aggravated the itching; eighteen drops made it still worse, according to the patient's statement. Finding that the tincture obtained was not that which he had ordered, and was productive of no physiological effect, Keith's tincture was procured, and was given in one daily dose at night. Five drops produced no effect; ten drops gave slight relief; fifteen drops gave decided relief; twenty drops produced about the same effect; twenty-five drops caused very decided relief, but also gave rise to double vision; thirty-drops, the patient said, "pulled down the eyelids," and secured sleep. Before taking the drug, the patient had been obliged to pass water very frequently at night, but, after beginning its use, he got up only two or three times. Dr. Fox thought well of gelsemium as a narcotic, but did not consider it proper to term it an antipruritic.

Dr. Bulkley asked Dr. Fox if he had warned his patient of its effects on the eye.

Dr. Fox replied that he had, and that fifteen drops had produced a slight effect.

Dr. Morrow remarked that he could offer no affirmatory testimony as to the value of gelsemium as an antipruritic. He had used the drug quite extensively, and had found it to possess quite a wide range of therapeutic properties, but he had never observed any effect upon the cutaneous sensibility. He was also somewhat familiar with its use in the hands of others, and, so far as he was aware, no other observer had ever noted any such effect. If a more extended investigation should prove that it did possess decided antipruritic properties, Dr. Bulkley would be entitled to the full credit of the discovery. He was inclined to think, however, that its claims as an antipruritic had been urged with more pretension than its real value warranted. He thought that physicians were too apt to claim new properties for well-known drugs without testing them carefully in a large number of cases, and eliminating all possible sources of error—especially the *post-hoc-ergo-propter-hoc* reasoning, which is so often deceptive when applied to the action of drugs upon the system. It was a well-known principle in therapeutics, that the action of a drug upon the healthy organism often afforded valuable indications as to its adaptability to morbid states. The phys-

iological effects of gelsemium had been carefully studied by Bartholow, Ott, Ringer and others, and we found nothing in their statements from which, by any process of analogical reasoning, its action as an antipruritic could be inferred. He had experimented somewhat with this drug *in propria personæ*, and would give the results of such experimental proving for what they were worth. The earlier and more characteristic effects of gelsemium seemed to be manifested through the ocular apparatus. The first effect noted, after taking a sensible dose, was a sense of fulness in the supra-orbital region, followed soon by drooping of the upper lid, dilatation of the pupil, dimness of vision, diplopia, and a general sense of muscular relaxation. He had never pushed its effect beyond this point. There was no disturbance of the mental functions and no impairment of sensibility. These symptoms usually came on in half an hour after the ingestion of the drug, and completely passed away in the course of two or three hours. If the administration of the drug were pushed until toxic symptoms supervened, there was a blind and staggering gait, followed by a complete abolition of muscular movement, and by paralysis of the nerves of sensation. The numbness, or anæsthesia, was one of the ultimate toxic effects, and possibly was due to carbonic acid narcosis, as it was well known that gelseminum acted as a direct poison to the respiratory centre. In the experiments of Drs. Ringer and Murrell, particular attention was paid to the influence of this drug upon the mind and sensation. The cutaneous sensibility was unaffected. This was carefully tested by pinching, pricking and the use of the compass. There was absolutely no loss of sensation, although the patient was fully under the influence of the drug, and all its characteristic physiological effects were manifested. Dr. Ringer stated that he had devoted particular attention to this point, as gelseminum had been introduced into England as a specific for odontalgia and other neuralgias, especially those affecting the second and third divisions of the fifth pair. The conclusions arrived at by these experimenters were in direct antagonism with the assumption that the drug possessed antipruritic properties.

Dr. Morrow's principal objection to having the paper endorsed by the Dermatological Society was chiefly on account of what he conceived to be the dangerous dose recommended. From ten to fifteen drops of the tincture of gelseminum every half hour, until one or two drachms had been taken, seemed to him an unsafe method of administration, and liable to be

followed by toxic effects, especially if a reliable tincture were used. As was well known, there was no officinal tincture of this drug, and the market preparations were by no means uniform in quality and strength. The preparations of different makers, or even of the same maker, for that matter, varied largely accordingly as they were made from the green or the dried root. The dried root, when kept for some time, seemed to become entirely inert, so far as any medicinal action was concerned. He wished to correct Dr. Bulkley's statement, that the smallest recorded dose which had produced death in an adult was two drachms of the tincture. Cases had been reported in which death had resulted from the adminstration of thirty and forty drops. In one of Ringer's cases, in which ten drops had been ordered three times a day, the second dose had produced toxic symptoms. In a case reported in the *Medical Record*, three-drop doses, given three times a day, produced the full physiological effects, followed by paralysis of the bladder. He recalled a case of fatal poisoning by gelseminum which occurred in this city a few years ago. A delicate lady had been ordered four powders, each containing one grain of gelsemin (the so-called resinoid). The second dose produced death within two hours after taking it. The publicity given to this case called forth reports, from a number of physicians, of cases in which dangerous symptoms had followed what were considered ordinary doses of the drug. He prescribed it with the same caution that he would aconite, veratrum, and other drugs of this class.

In offering these criticisms, he did not wish to underrate the great value of gelseminum when prescribed judiciously and under appropriate conditions. In the South and Southwest it was regarded as a most valuable febrifuge and anti periodic, and was used largely in remittent and typho-malarial fevers. It had been used in epilepsy with advantage; also in tetanus, as its action on the spinal cord was directly opposite to that which took place in tetanus. It had been found an admirable remedy in spasmodic asthma and in all irritable coughs dependent upon abnormal excitability of the respiratory nerves.

In his own case, he had found it of signal service in supra-orbital neuralgia—an affection to which he was frequently subject. Five-drop doses, every hour or two, generally gave relief, except when this condition was associated with deranged stomach and liver. But the therapeutical application of this drug which had most interest for members of the

Dermatological Society was its action upon the genito-urinary apparatus. He had found it a valuable remedy in incontinence of urine from irritable bladder, probably from its effect in relieving muscular spasm. It was no less valuable in difficult urination from urethral congestion, from spasmodic, and even from organic stricture. In these cases it acted more nearly as a specific than any remedy with which he was acquainted.

Dr. Piffard stated that he had employed it in supra-orbital neuralgia, and had found that it acted more quickly than any other drug, especially when the pain affected the right side. He remarked that its effects on the urethra had been recognized fifty years ago. The late Dr. Darby had mentioned these effects in his thesis on the drug. Twelve years ago it was used at Charity Hospital in acute cases of gonorrhœa, with benefit, in doses ranging from five to ten drops of the tincture three times a day.

Dr. Bulkley said that he used the tincture of medium strength, and that all his cases had occurred in private practice, numbering about twenty. In one-half of them there was no relief. In one recent case very marked relief was obtained. He was confident of its anti pruritic action.

Dr. Piffard replied that he would not now question its anti-pruritic effect, as he had had no experience bearing upon that point; but he looked upon it as a dangerous drug, if used in the manner recommended.

New African Arrow Poison.—Robert W. Felkin has sent to Dr. Ringer an arrow poison, which is used on the east coast of Africa, between Zanzibar and the Sourali Land, and is made by the Wanika and Wakamba tribes, who live to the west of an island called Mombasa. Extracts are made from eleven different roots; the poison is a black extract, of firm consistence, and almost odorless. A. W. Gerrard believes that the chief ingredient of the new poison is a Strophanthus, either S. hispidus or S. Kombé, nat. ord. Apocynaceæ, thus closely allied to the genus Strychnos. Dr. F. R. Fraser, in 1872, investigated the seeds of an African strophanthus, and found it to be a powerful paralyzing agent and cardiac poison.

The new poison which, in the absence of a name, is called *wanika*, after one of the tribes using it, was found by Gerrard not to contain an alkaloid; it contains a tannin, precipitating ferric salts blueish-green, and a glucoside, which was prepared by diluting the alcoholic extract with water, filter-

ing, precipitating with basic lead acetate, filtering, removing excess of lead by sulphuric acid, evaporating, treating repeatedly with a mixture of chloroform and alcohol to remove glucose, and evaporating. The principle is neutral, amorphous, pungently bitter, soluble in alcohol and water, insoluble in ether and chloroform, yields with strong sulphuric acid a slight brown color, and when heated with soda lime evolves ammonia; with Fehling's solution it gives no reduction till boiled with a dilute acid.

Dr. Ringer found this arrow poison to be a powerful muscle poison, as active as veratria, and, unlike veratria, not prolonging the relaxation of a muscle after its contraction. It is a feeble poison to motor nerves, and has no effect on afferent nerves. It is as powerful a cardiac poison as digitalin, and more so than veratria. It arrests the ventricle in systole, and does not prolong the systole of the heart nearly so much as veratria. It has but little action when administered by the mouth; five minims of a five per cent. solution hypodermically given will kill a cat in from fifteen to twenty minutes, whilst forty-five minims given by the stomach caused only nausea and vomiting, with a little weakness.

The antidote to this poison is made in Africa from five roots, which are said to be baked and afterwards ground and mixed with honey; unless given within five minutes of the time when the wound is received, the antidote does no good. In the hands of Dr. Ringer it proved to be worthless, whether given internally or applied topically.—*Pharm. Jour. and Trans.*, April 9, pp. 833–835.—*Amer. Jour. Pharm.*, June, 1881.

Nocturnal Incontinence of Children.—Prof. S. D. Gross, of Philadelphia, advises:

℞. Strychniæ.....gr. j
Pulv. cantharides.....grs. ij
Morph. sulph.....grs. iss
Ferri. pulv.....℥j. M.

Mix: Make 40 or 50 pills or powders, *pro re nata.*

Sig.—One three times a day to a child ten years old.

This prescription will speedily relieve the irritability of the bladder, especially if conjoined with such means as a cold shower bath daily, the avoidance of irritant food and late suppers, the patient lying on the side or belly, and taking care to drink nothing for the few hours preceding sleep, and to empty the bladder on going to bed.—*Mich. Med. News.*

Book Notices, &c.

Text Book of Practical Medicine, with Particular Reference to Physiology and Anatomy. By DR. FELIX VON NIEMEYER, Professor of Pathology and Therapeutics, Director of the Medical Clinic of the University of Tübingen, etc. Translated from the Eighth German Edition by Special Permission of the Author, by GEORGE H. HUMPHREYS, M. D., one of the Physicians to Trinity Infirmary, New York, etc., and CHARLES E. HACKLEY, M. D., one of the Physicians to New York Hospital, etc. Revised Edition. In two Volumes. New York: D. Appleton & Co. 1881. 8vo. Vol. I., pp. 767—xvi. Vol., II, 861—ix. (From Publishers.)

"Niemeyer's Practice" is a work of such established value to every practitioner, that it is scarcely necessary to do more than announce that the present "revised edition," with many valuable additions and alterations as to American practice, has been issued by the American Translators. These gentlemen have done their part most admirably. Not only have they been "translators," but they have been editors as well. They have made the work much more adaptable to the wants of American practitioners than could have been expected. They have compiled several chapters from best authorities on subjects not considered by Niemeyer himself.

As a book for practitioners, we like the author's way of commencing. He does not give long dissertations upon inflammation, fever, etc., in general: but the first chapter of the work is on "Hyperæmia and Catarrh of the Mucous Membrane of the Larynx;" the next chapter is on "Croup," and so he goes on. Unlike most German writers on *Practice*, Dr. Niemeyer is practical—at least in his work now before us, he looks to the interests and wants of the general practitioner. For instance, the first chapter of the first volume, on the subject above indicated, is composed of fourteen pages. Not quite two pages are devoted to etiology; a page and a quarter is taken up in describing anatomical appearances; four pages are devoted to symptoms and course of the diseases named; about one page is given to diagnosis; and the remainder of the chapter, fully six pages, is allotted to treatment. This last section on treatment is filled with good, practical suggestions and many useful prescriptions.

While, of course, we cannot undertake a review of this immense work of about 1,600 pages in a journal of the size of ours, we may say that we have examined the volumes very carefully, as to whether to recommend them to practi-

tioners or not; and we are glad to say, after a careful review, "buy the book." The chapters are succinctly written. Terse terms and, in the main, brief sentences are used. Personal experience is recorded, with a proper statement of facts and observations by other authors who are to be trusted. A very excellent index is added to the second volume, which helps very much for ready reference.

Anatomical Plates, Arranged as a Companion Volume to "The Essentials of Anatomy" (by Darling & Ranney), and for all Works upon Descriptive Anatomy. By AMBROSE L. RANNEY, A. M., M. D., Adjunct Professor of Anatomy, Medical Department, University City of New York; one of the Authors of "Essentials of Anatomy," etc. New York: G. P. Putnam's Sons. 1881. Royal. 8vo. Cloth. Price, $3. (For sale by Messrs. West, Johnston & Co., Richmond.)

These "Plates" are beautifully issued. They comprise 439 designs on steel by Prof. J. N. Masse, of Paris, and numerous diagramatic cuts selected or designed by the Editor, together with explanatory letter press. The work is exceedingly valuable to surgeons, students in dissecting rooms, teachers of anatomy and practitioners generally. The plates are admirably executed. The price of the book puts it within the reach of all practitioners. We know of no anatomical plates that are so good that can be bought at anything like the small price of this book.

Antagonism between Medicines and between Remedies and Diseases. By ROBERTS BARTHOLOW, M. A., M. D., LL. D., Professor Materia Medica and General Therapeutics, Jefferson Medical College, etc. New York: D. Appleton & Co. 1881. 8vo. Pp. 122. Cloth, Price $1.25. (For sale by Mr. Carlton McCarthy, Richmond.)

This volume presents the first of the annual series of the "Cartwright Lectures," established by the liberality of Mr. Cartwright, of Newark, N. J., in connection with the Alumni Association of the College of Physicians and Surgeons, of New York city. Dr. Bartholow selected one of the most popular and instructive subjects, as given in the title above, that he could possibly have chosen. The principles of the antagonism named are well brought out and substantiated by authoritative details or reports of cases. While it was not within the design of the lectures to bring out more of detail, still it is to be hoped that, should the author ever undertake a revision of the present text with reference to a new edition, he will extend his investigations and reports to other

agents than those he has considered in this work. The 105 cases of opium poisoning treated by physiological antagonists, which he gives as collated from published reports, represent a very small proportion of those named even in American journals and Society Transactions; and the same remark is applicable alike to the antagonism of strychnia and chloral, etc. The book is very valuable as a guide—interesting in style of presentation of facts and views, and convincing in the conclusion at which the author arrives—that many medicines have their physiological antagonists almost as powerful for good as chemical antidotes.

A Medico-Legal Treatise on Malpractice, Medical Evidence and Insanity, containing the Evidences of Medical Jurisprudence. By JOHN J. EWELL, M. D., Member of the Cleveland Bar, Professor in Ohio State and Union Law College, and Western Reserve Medical College, etc. Fourth Edition. Revised and Enlarged. New York: Baker, Voorhis & Co. 1881. Pp. 600. (From publishers.)

It may be sufficient to state that this standard and invaluable work has been re-issued after careful revision. We cannot understand how a physician or a lawyer can dispense with this treatise. Further endorsement of "Ewell's Treatise" would be superfluous. The title of the work exactly expresses the scope of the book. It does not take the place of "Medical Jurisprudence," as published, by the lamented Taylor, of England, but it is an invaluable "footnote" publication to that invaluable work.

Principles and Practice of Surgery. By D. HAYES AGNEW, M. D., LL. D., Professor of Surgery Medical Department, University of Pennsylvania, etc. Profusely Illustrated. Voll. II. Philadelphia: J. B. Lippincott & Co. 1881. Royal. 8vo. Pp. 1066. Cloth, Priee $7.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

"Agnew's Surgery" will be complete in three large volumes. Volume I was published in 1878, and treated of wounds and injuries of the head, chest, abdomen, extremities, diseases of the abdomen, diseases and injuries of blood vessels, ligation of arteries, surgical dressings, injuries and diseases of the osseous system. Volume II—the one now before us—treats of dislocations, joint diseases, excisions, minor surgery, operations, anæsthetics, amputations, traumatic fever, furunculus, injuries and diseases of the genito-urinary organs, surgical diseases of women, surgical spinal affections, malformations of the head from effusion, and sur

gical diseases of the mouth. The third volume—now in process of rapid preparation—when published, will complete the work of over 3,000 large octavo pages. The want of systematic arrangement of subjects discussed, as shown by the briefs above made from the Table of Contents, is made less objectionable by copious indices; so that one can readily refer to the subject he wishes to investigate.

The great eminence of the author as a careful instructor in surgery and his accuracy in surgical diagnosis and operation at once places his book high in the rank of standard works. The chapter (XII) on "Diseases of the Joints," covering nearly 100 pages, is the most valuable we have seen in any one book on Surgery. The chapter on Spinal Curvatures, is also specially excellent. And in many other portions of this volume do we find carefully prepared tabular statements of differential diagnoses. As to treatment, we do not find much that is novel. Dr. Agnew has preferred not to confuse his readers by the descriptions of many minor suggestions in operations and instruments which too plainly can never be adopted in practice. But he has everywhere given prominence to those means and methods which stand approved by either principle or practice. We most unreservedly commend this book. We are anxious to see the third volume.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Vol II. BERLIOZCHOLAS. Washington. Government Printing Office. 1881.

Dr. Billings, under whose special supervision this invaluable index is prepared, states that "this volume includes 12,459 author-titles, representing 4,934 volumes and 9,810 pamphlets. It also includes 11,550 subject-titles of separate books and pamphlets, and 37,310 titles of articles in periodicals." The value of such a work cannot be estimated. The thoroughness with which Dr. Billings is completing this index entitles him to the highest praise.

Relations of the Minute Blood Vessels to the Fat Cells in the Fascia of the Calf's Neck. Illustrated by Photographs and Drawings. By WM. R. WEISIGER, M. D., of Manchester, Va., President of the Richmond Microscopical Society. 8vo. Price, $2.75. (From the Author.)

Dr. Weisiger is one of the most eminent microscopists in America. This brochure, read before the Richmond Society last April, now published in book form, will add to his repu-

tation. Without reproducing the plates, it would be impossible to fairly state the merits of this excellent address Dr. Weisiger's efforts, thus far so successful, despite his want of certain mechanical facilities, will give an impetus to microscopic investigations. His experiments will prove of the highest value to the student. It is proper to say, however, that the address and illustrations will be found valuable, especially to those who have made progress in microscopic investigations. The author, as we know him personally, has been *too* modest to assert his rights as an author. But there is nothing that he affirms in the book under notice which he states to be a *fact* that those who know him well are not willing to concede as a *real* fact. Dr. Weisiger's book, with all the *photographs* that are pasted in it, is remarkably cheap. The photographs are made from direct appearances, and are made by one of the best photographers of this city.

Lectures upon Diseases of the Rectum and the Surgery of the Lower Bowel. By W. H. VAN BUREN, M. D , LL. D. (Yalen.), Professor of the Principles and Practice of Surgery, Bellevue Hospital Medical College, etc. New York: D. Appleton & Co 1881. 8vo. Pp. 412. Cloth, Price $3. (For sale by Mr. Carlton McCarthy, Richmond.)

This is a second edition of the famous work on the Rectum by Dr. Van Buren; and, as compared with the first edition, is a great improvement—many revisions and much new matter being included in this second edition. One of the characteristics of Dr. Van Buren's writings has always been their practical or clinical feature. The book contains the substance of lectures delivered at the Bellevue Hospital Medical College, of New York city, plus the introduction of new matter—mainly in the shape of opinions and cases from authentic records—thus giving the book the advantage of being almost the equal of a personal consultation with the able author. This work will long remain as the standard authority on the diseases of which it treats.

American Nervousness: Its Causes and Consequences—A Supplement to Nervous Exhaustion (Neurasthenia). By GEORGE M. BEARD, M. D., Ex-Vice-President American Academy of Medicine, etc., etc. New York: G. P. Putnam's Sons. 1881. 8vo. Pp. 352—XXII. Cloth, $1.50 (For sale by Messrs. West, Johnston & Co., Richmond.)

Dr. Beard is already well known to the readers of the *Monthly*. In the excellent work now before us, the author reproduces some of the thoughts which several years ago appeared in these pages over his name. The title of the work

suggests its scope. The philosophical manner of investigation and attractive style of Dr. Beard will engage the attention of the scientific and the laity. We regard the work as a valuable contribution to the department of medical investigation which has engaged so carefully the attention of Dr. Beard for the last twenty-five years. We look upon this work as one of great value to both doctors and "the people." Many useful suggestions are thrown out which, if adopted by the readers, will make him or her much more useful as to the preservation of life and health of society.

Report on Trichinæ and Trichinosis. By W. C. W. GLAZIER, M. D., Assistant Surgeon Marine Hospital Service, etc. Washington: Government Printing Office. 1881. 8vo. Pp. 212.

This "Report," prepared under direction of the Supervising Surgeon General of the Marine Hospital Service and by order of Congress, is a complete monograph on the subject. Dr. Glazier has done his work well. As the subject is assuming much practical importance in several sections of the United States, we would advise our readers to provide themselves with copies of the Report. They can be procured, no doubt, through the influence of the Congressman from the district of the applicant.

First Biennial Report of the North Carolina Board of Health. 1879-80. S. S. SATCHWELL, Rocky Point, President; THOS. F. WOOD, M. D., Wilmington, Secretary. 8vo. Pp. 201.

This "Report" is very interesting, because it emanates from the second equipped Board of Health in the South. This Board of Health consists of six physicians elected by the Medical Society of North Carolina, besides three citizens appointed by the Governor, who, in the present instance, are excellent appointments. If the Governors of other States were less "martinetish," or else if they would consider less their political parties and make appointments regardless of *so-called political* opinion—selecting rather men of ability to fill professional offices—the States would get on better, and a truer political course would be followed. We say this without knowing the "politics" of any of the gentlemen appointed by the worthy Governor of North Carolina, although we have heard of each of the three as being thoroughly competent professional men in each of the three departments they occupy. Because of the excellent selections made by the State Society and by gubernatorial appointment, the or-

ganization of County Boards was effected in most of the counties before September, 1879, notwithstanding the fact that the law gave the County Superintendent only such amount as was spent in 1878 for medical attendance in the jail and poor-house and work-house, and the amount paid for medico-legal examinations at coroners' inquests. In some counties this amounted to nothing, and in many of them it was very small; and the Superintendents undertook their duties, impelled alone by the pride and the interest they had in the work which had been inaugurated by the State medical profession. Of course such "compensation" cannot last long when there are families dependent upon the labors of such county officers. Although our views may seem extreme, still, in the main, we value as insignificant services that are not appropriately paid for for any consecutive term of years.

The appendix to this volume consists of six valuable papers. The first of them (unsigned) is on the "*Method of Performing Post-mortem Examinations.*" The next paper is a "*Circular on Ventilation, Drainage, Drinking Water, and Disinfectants.*" Mr. William Cain, C. E., contributes several practical chapters on "*Sanitary Engineering.*" Next comes a "Table Compiled from the Monthly Bulletin" of the Health Board, by the most worthy Secretary, Dr. Thomas F. Wood, showing prevailing diseases, etc. Hon. Erastus Brooks, of New York, contributes a suggestive paper on "*What the State Owes the People—Public Health is Public Wealth.*" Dr. R. L. Payne, of Lexington, N. C., concludes the volume with a valuable paper on the "*Limitation and Prevention of Diphtheria.*"

The Student's Dream. Published for the author. Chicago. Jansen, McClung & Co. 1881. 16mo. Pp. 97.

The author is a diligent disciple of Herbert Spencer, and his publishers have gotten out his "Dream," which is not all a dream, in the very handsomest style of the art.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice; but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Second Annual Report of the State Board of Health of State of Connecticut, 1879. President, Dr. John S. Butler, Hartford; Secretary, Dr. C. W. Chamberlain, Hartford. Paper; 8vo. Pp. 205.

Editorial.

Alumni Association of the Albany Medical College.—We would earnestly call the attention of every alumnus of the Albany Medical College to the following announcement:

At a meeting of the Executive Committee of the Alumni, held June 16, 1881, the President stated that he had given considerable thought to the matter of prize essays to increase the interest in and efficiency of the Association.

He had concluded to offer an annual prize of $100, to be called "A Surgical Prize;" and would announce as the subject for this year, "Essay on Colles Fracture—its Pathology and Treatment"—to be accompanied with a pathological specimen illustrating the fracture, with or without dislocation of the ulna, or a careful dissection of the hand, wrist or forearm.

After favorable remarks by members of the committee, on motion of Dr. L. Hale, Dr Van Dervier, the President, was appointed a committee of one to give the matter further consideration.

Subsequently, he reported that the heirs of the late Prof. Alden March, M. D., LL. D., desired to give the sum of $100 as an annual "March Memorial Prize," the essay for the coming year to be on the Pathology and Treatment of Morbus Coxarius. Also, that Mr. McClure, a governor of the Albany Hospital, had decided to give the sum of $100 annually as an "Armsby Memorial Prize," the essay to be on some anatomical subject. That for the coming year will consist of a minute description of the genito-urinary organs of the male, together with a carefully dissected specimen of the same.

The President further reported, that the heirs of the late Prof. James MacNaughton, M. D., had offered the sum of $100 as a "MacNaughton Memorial Prize," the subject of the essay for the current year to be Antisepsis in the Treatment of Diseases.

And Mr. Joseph Russell, a trustee of the College, offers for this year a second surgical prize of $50 for the second best essay on Colles Fracture.

Essay and specimens, designated by a motto, and accompanied by a sealed envelope, enclosed with the same motto, and containing the name and address of the author, must be sent to the Secretary, Dr. W. G. Tudrer, by or on the 14th day of February, 1882. The committee to examine the essays for this year will consist of Drs. A. Van Dervier, J.

S. Morlier and Lorenzo Hale; and they reserve the right to reject any or all the essays if not deemed worthy.

All specimens are to be deposited in the New Museum of the College, properly labelled.

Hygeia Hotel.—This celebrated resort has never been so popular as during the present season. The demand for room has run beyond the supply. Mr. Phœbus has no superior as a hotel man; no one can visit the Old Point without being impressed with his genius for making his visitors happy. Until the last year "the season" was limited to the summer months. Now the demand for a winter sanitarium and pleasure resort at Old Point has induced the proprietor to make such additions and improvements as to recommend the Hygeia to visitors at all seasons of the year.

Valentine's Meat Juice.—Few exhibitors attracted so much attention during the late session of the American Medical Association in this city as Mr. Mann S. Valentine's display of "*Valentine's Meat Juice*" in his unique cabinet, composed entirely of Virginia native woods. In 1878, Valentine's Meat Juice received special notice at the Paris Exposition; and now, he proposes to exhibit his preparation at the approaching exhibition in London during the "International Medical and Sanitary Exhibition." The "Meat Juice" has strong friends in England; its fame is world-wide. We see, in the daily press, that President Garfield has used Valentine's Meat Juice, under the direction of his physicians, with happy results.

The Half-Yearly Compendium of Medical Science, for July, contains a valuable variety of translations and selections, indicating, as Dr. Burton says in the preface, the advance which medical science has made during the past six months. The activity displayed has been about equal in Europe and America, and the editors have made fair selections representing the two continents.

Dr. Geo. Ben. Johnston will soon return to this city to resume the practice of his profession. In his deep sorrow, he has the sympathy of the entire community.

The Nashville Journal of Medicine and Surgery makes its appearance in July in a greatly improved form. Dr. Briggs conducts an excellent medical journal.

The Association of Medical Editors, according to *Gaillard's Medical Journal*, "is now twelve years old, and so far has never done anything more than elect officers."

[The editor of *Gaillard's Medical Journal* ought to attend some of the meetings of the Association. If he had been at the one in this city last May, he would have heard read a very excellent paper, prepared by friend Shrady—the suggestions of which are worth remembering. By the way, that address ought to get into print. We would only be too glad to have his address for our columns.—EDITOR.]

Seats for Shop Girls.—*The Independent Practitioner* is our authority—and high authority too—for stating that New York now requires "shop-keepers to prepare seats for females in their business places." *The Practitioner* properly adds, "The enlightened intelligence of the age is rapidly pointing out, or indicating, many new or heretofore unutilized methods and ways of preserving health." If we may add that if our Legislatures and Councils would heed the advice of an enlightened profession, then many of the ills of humanity would be abated. But we note "progress."

The Virginia Historical Society is now permanently located in the rooms of the Westmoreland Club, of this city. This Society, organized in 1834, has made many valuable contributions, or rather has rescued from oblivion, many important records of the history of the Old Dominion. The present Corresponding Secretary of the Society, Mr. R. A. Brock, is doing a service for Virginia that is lightly valued. The Society derives its revenue from the annual fees ($5) of each of its members. It is proposed to issue annually a volume of historical material of value for distribution among the members. We note with pleasure the fact that during the past year many additions have been made to the membership of the Society, and that this increase has come largely from citizens of other States than Virginia.

Quinquinia.—This preparation of the alkaloids of cinchona bark is rapidly and deservedly gaining the highest favor with physicians. As a substitute for quinia, it has been used with happiest results; and being on the market at a price much less than that of quinia, its popularity must increase. We do a public service in recommending this preparation to our readers, and especially to our professional friends whose practice lies chiefly in malarial territory.

Curable Blind in Asylums.—*The Buffalo Medical and Surgical Journal* (July, 1881) states, editorially, "it is *not* generally known that among the pupils thus received as incurably blind [in the State asylums], there are not a few who might be made to see much better, if not be entirely cured." Many of the patients are sent to the asylums by inexperienced doctors, to whom it does not occur "that an artificial pupil could be made, or a cataract extracted." The Journal suggests that the Board of Health appoint competent physicians to examine the applicants at the asylums, and determine who should be admitted and who were yet curable.

Mr. W. N. Purdon, the representative of Messrs. Charles T. White & Co., was in the city a few days ago, and met, as always, a hearty reception from his many friends here. We regret that his stay was so brief.

The Medical Society of Ohio has made a new departure in issuing its proceedings in the form of the *Ohio Medical Journal*, which takes the place of the usual volume of *Transactions*. The Secretary of the Society, Dr. Baldwin, becomes editor-in-chief. He is assisted by four associates, selected from members residing in different sections of the State. The first number of the new issue augurs well for the success of the enterprise. We heartily commend the *Ohio Medical Journal* as the exponent of the best medical talent in that State.

The Popular Science Monthly fills an unsupplied want. We cannot well understand why an intelligent layman can dispense with it; certainly this journal should be the monthly visitant of every physician and scientist.

A Treatise on Impotence, Sterility and Allied Disorders of the Male Sexual Organs, by Dr. Samuel W. Gross, is now in press, and will be issued at an early day by Messrs. Henry C. Lea's Sons & Co., of Philadelphia.

Honors to Professor Flint.—The degree of LL. D. was conferred upon Dr. Austin Flint, Sr., by Yale College, at its recent commencement.

The Buffalo Medical and Surgical Journal, for July, 1881, contains an interesting article on Arrow Wounds, contributed by Dr. H. T. Kilbourne, Assistant Surgeon U. S. A.

The Pharmaceutical Association, of Petersburg, is taking steps for the organization of a State Association. It is proposed to hold a Convention in this city in October next. We trust that the enterprise will meet with success. The pharmacists of Richmond are only too anxious for such an organization.

Mr. T. Roberts Baker, one of the most progressive and scientific druggists in the State, gives evidence of his success by making extensive improvements in his store. With almost double his former store-room capacity, the facilities for meeting the demands of his business are greatly increased. Among many preparations made by Mr. Baker, his "Carbolic Mouth Wash" has great popularity. It has the approval of physicians and dentists.

Listerine.—This new antiseptic preparation is meeting with great favor among surgeons and physicians. As a disinfectant and antiseptic, it seems to supersede in value all preparations now before the public. Carbolic acid, and eucalyptus alone, do not so efficiently meet the wants of the profession. We commend this convenient and valuable preparations to all surgeons and physicians. It is manufactured by Messrs. Lambert & Co., St. Louis, and for sale by leading druggists throughout the country. It has the endorsation of a large number of the leading surgeons of the United States.

Correction.—In the article on *Diphtheria, etc.*, by Dr. Henry P. Wenzel, of Milwaukie, Wis., on page 285, July number, 1881, a glaring typographical error should be corrected, as the doses of strychnia and muriated tincture of iron contained in the prescription would be too large for safety. Instead of *glycerinæ*, f. ʒvj, it should read glycerinæ, ʒiv.

Obituary Record.

Dr. George S. Blackie, M. D., Ph. D., Professor of Chemistry in the Medical Department of the University of Tennessee, and senior editor of the *Southern Practitioner*, died on the 29th of June. He was a man of extensive cultnre; and of attainments far above the average. He was a frequent contributor to the medical and scientific journals of this and other countries, and during his career occupied many honorable positions, and was the recipient of many honors.

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RICHMOND, SEPTEMBER, 1881.

Original Communications.

ART. I.—**The Treatment of Abortions.*** By GEO. T. HARRISON, M. A., M. D., Assistant Surgeon to the Women's Hospital in the State of New York. New York, N. Y.

A writer who affirms the proposition that the treatment of abortions and their consequences, forming, as they do, so large a part of ordinary gynæcological practice, is a matter of paramount importance, would hardly find an opponent; and to many the statement might almost seem axiomatic. On the contrary, should such writer maintain that the principles of treatment are now well established and may readily be formulated to meet all contingencies, the statement, while accepted as true by some, would be denied by others who might refer conclusively to a number of points in therapeutics in regard to which views are not in harmony and which are still open for further discussion. In this latter category I count myself; and the object of this paper is to make a slight contribution to the solution of this *questio vexata.*

* By abortion, I mean the expulsion of the fœtus from the beginning of pregnancy up to a time when the child is viable.

As the subject of prophylaxis, though of deep moment, does not lie within the scope of this discussion, it is assumed in the remarks which follow that the abortion cannot be prevented; and the problem that confronts the physician is to carry the patient safely through its dangers. Let us call to mind what these perils are to which the woman who has recently aborted is exposed, as it will conduce to a better apprehension of the object to be attained by our therapeutical measures, and enable us to judge more correctly of their relative value.

The immediate consequence of an abortion may be such excessive and exhausting hæmorrhage as to cause the speedy death of the patient; and although this sad termination is a rare event, it has occurred often enough to serve as a warning to be kept constantly in view. Septic infection also may follow rapidly upon an abortion and carry off its victim. It is true that septic processes of a grave character occurring after the premature interruption of pregnancy, are by no means so frequent, as after child-birth at term; still, in the first case, they are no absolute rarity. Further, in the language of Spiegelberg,* "The most frequent secondary diseases are parametric and pelvi-peritonitic inflammations, besides persistent anæmia—especially the latter—the cause of which in part is extravasation. The secondary disease, the effects of which persist longest, is subinvolution. From them mainly develop the affections which torment women for a long time, often for years—infarction, chronic catarrh, retroflexion and retroversion, thickening and shrinking of the pelvic cellular tissue, menstrual disturbances and inclination to renewed abortion."

Our therapeutic endeavors should, therefore, be directed to a prevention of hæmorrhage, or, at least to its limitation within bounds consistent with safety to the patient—to the avoidance of septic infection and its consequences; and especially should it be an object of our earnest effort to secure perfect involution of the uterus. Experience has amply proven what we would naturally *à priori* assume, that the speedy expulsion of the ovum, by means, not of an inju-

* Vide *Lehrboch*, page 379.

rious character, but facilitates the accomplishment of these indications; while, on the other hand, it is a matter of universal observation, that the retention of portions of the ovum within the uterine cavity offers the chief impediment in the way of their fulfillment. All writers, therefore, make it a cardinal point in treatment that we should not leave back any part of the ovum. But here opinions diverge—some insisting that we can best accomplish our design by an expectant plan of procedure, while others, on the contrary, are in favor of active interference either instrumentally or manually. If I may judge by the recent discussions in the New York Academy of Medicine and by those in the Obstetrical Society of this city,* and, similarly, if I may draw conclusions from the remarks made before the Section of Obstetrics and Diseases of Women at the meeting of the American Medical Association preceding the last, I should say that in this country specialists as a rule are in favor of active interference, while general practitioners are rather inclined to adopt the expectant plan. Let us examine the arguments that have been adduced by the advocates of each method in succession.

And first, let Dr. Dohrn give his reasons against operative interference. "We will attain to sounder views upon this question," he remarks, † "when the process of detachment of the ovum is better investigated and appreciated. When the contraction of the uterus detaches the ovum, the process is such that the decidua serotina and vera separate from the muscular substratum, which endeavors to shorten. The ovum having become free in this manner, the decidual sac, which forms the reflexa, is pressed forth during the pressure of the pain and draws the decidua vera after it, as it escapes from the cervical canal, at the same time inverting the latter. This process is the usual one in an abortion, in the earlier months, unless the previous development of extensive extravasations of blood have disturbed the position and mode of connection of the separate sections of the decidua.

That the detachment and expulsion of the ovum should occur in this way is to be desired, for the complete evacua-

* Vide *Transactions Obstetrical Society of New York*, 1876–78, page 389.

† Vide *Ueber Behandlung der Fehlgeburten, Volkmann's Sammlung Klin, Vorträge.*

tion of the uterine cavity is thereby best assured. It is questionable now whether we are able by operative interference to imitate this process. He who shall be able to form an adequate idea of the circumstances in which he is placed in such operations, and will be certain that he merely detaches the boundary layer where the separation would have ensued without his assistance, that he neither wounds the uterine wall nor leaves behind the fœtal parts of the ovum, needs for this purpose freer scope than is afforded by the uterine cavity in abortions. A smooth surface after the detachment in such cases is never made by the most dextrous operator, and if even small residues may be injurious for the puerperal state, the patient will not be benefited by such operative interference. In fact, the usual state of the case is this, that it is not the decidua vera that forms the point of attacks on which the operator begins his manipulations, but that the point of the sac of the ovum, formed by the reflexa, is seized by the fingers or by instruments. The cases where the latter follows and draws the vera after it are eminently rare. Generally the sac of the ovum tears asunder or is detached at the fold of transition into the vera, and then the abortion is half ended; uterine contraction has not so much to act upon, and at the same time the later expulsion of the decidua vera is rendered more difficult."

On the contrary, Dr. Fehling, who has contributed an excellent paper upon this theme to the *Archive für Gynækologie* (Bd. XIII, hft. 2), earnestly advocates active intervention and gives the following reasons in justification of this method of practice: "In the first place," he remarks, "we are in no way certain, though the course is entirely spontaneous, and though we believe in quite an expectant manner, that parts of the ovum do not remain back in the uterus. Every one knows that the younger the ovum the more difficult it is to loosen it from its seat of attachment; consequently, parts of decidua or chorion very easily remain and then give rise to hæmorrhage, and, in consequence of their disintegration, to a lochial discharge with offensive odor. I have, in a series of cases, made examinations exercitü causa and almost regularly brought out rather large pieces of the membranes of the

ovum after the entire ovum had already been discharged, with a spontaneous course, cases in which, on account of the spontaneous course, formerly I would have done nothing more.

"Secondly, the use of the tampon applied with exactness does usually protect from dangerous hæmorrhages, but not absolutely. In several of my cases, in spite of the tampon with plugs of cotton most carefully applied by myself, serious hæmorrhage again appeared, so that I was compelled to resort to a more active procedure sooner than I designed.

"Thirdly, according to the expectant plan, the course is usually so slow and tedious that a series of dangers for the patient are involved in it. Generally the patient has already lost a considerable amount of blood before the physician is called. If she is then tamponned, blood is still lost every time the tampon is changed, and such a change is necessary to avoid fever from retention and decomposition of the effused blood. If such a fever is usually not very dangerous and soon again disappears, it is yet better to avoid entirely an absorption of putrefactive matters, since we never know where it may be bounded.

"Further, the time and professional engagements of the practitioner must be taken into account, especially in the country. For lying-in establishments and large towns, especially where a specialist has the management of abortion, the expectant procedure may be in place; a busy country practitioner cannot set by and await the course of an abortion lasting two or three days. For these reasons, certainly, the active procedure, which consists in removing the ovum as soon as possible, has already been adopted in the practice of many physicians. * * * * * *

"Fourthly, and chiefly, it must be emphasized that an active procedure for the removal of the ovum or its remains in an abortion is entirely without danger, if it is carried out with the necessary antiseptic precautions. For this purpose it is necessary in all cases, at the beginning, to disinfect the fingers with a five per cent. solution of carbolic acid and to apply the nail brush and soap."

Here, as elsewhere in the practice of medicine, where such

entirely opposite views are upheld by able members of the profession respectively, the truth lies, we think, in the mean. Says Lord Bacon, in his *Wisdom of the Ancients*, explaining the fable of Icarus and Scylla and Charybdis, "Mediocrity, or the holding a middle course, has been highly extolled in morality, but little in matters of science, though no less useful and proper here. * * * In matters of the understanding, it requires great skill and a particular felicity to steer clear of Scylla and Charybdis. If the ship strikes upon Scylla, it is dashed in pieces against the rocks; if upon Charybdis, it is swallowed outright. This allegory is pregnant with matter; but we shall only observe that the force of it lies here, that a mean be observed in every doctrine and science, and in the rules and axioms thereof, between the rocks of destinations and the whirlpools of universalities; for these two are the bone and shipwreck of fine geniuses and arts."

The bleeding is the first symptom usually which demands our therapeutical intervention. What that shall be will depend on the result of our examination per vaginam, which should be made at once, the patient being in the dorsal position, with the knees flexed. If it should now be found that the os uteri is but slightly open and the cervial canal, therefore, not accessible to the exploring finger, the best thing to do is to apply a vaginal tampon. The tampon arrests the hæmorrhage and stimulates uterine contraction and fulfills the indication completely. To proceed at once to the use of dilatation, whether gradual by the tent, or rapid and forcible by the several mechanical contrivances, of late, devised for this purpose, is unjustifiable, in view of the unnecessary dangers to which the patient is thereby subjected from septic infection consequent upon the injury to the uterine tissues which that treatment may cause. For the tampon, there is nothing superior to absorbent cotton—each piece being dipped in a solution of carbolic acid (two-and-a-half per cent.) and well wrung out. It frequently happens after the tampon is removed, in from six to twenty-four hours, that the ovum is found in the cervix or in the vagina. In the first case it is usually an easy matter to remove it by the

finger. In the second, the scene of course is ended. It happens, however, now and then, that though the ovum has descended into the cervix partially or entirely, yet the external os remains undilated, and presents an insuperable obstacle to the passage of the finger. In these circumstances, Schroeder * advises the incision of the os and cervix on each side to a greater or less extent. The ovum is then readily extracted manually. The divided surfaces are immediately united, observing strict antiseptic precautions. I concur fully in the view of this distinguished author, that each procedure is better than forced dilatation.

A method of removing the ovum, applicable especially in the first three months of pregnancy, was suggested by Hœning. † It consists in expressing the ovum out of the uterine cavity instead of extracting it. Two fingers of the one hand are introduced into the vagina and applied against the uterine body in the anterior or posterior fornix vaginæ, according to the position of the uterus, whether ante- or retroverted, while the other hand, from the abdominal walls, presses the uterus against these fingers. The ovum is forced into the cervix and then slips immediately into the vagina. I cannot commend this procedure too highly. I have practised it with great satisfaction. Prof. Lusk, ‡ of this city, in a very interesting paper read before the State Medical Society, says: "The measure is only practicable when the ovum has, to a great extent, passed the uterine cavity. As it is somewhat painful, and requires for its success lax abdominal parietes, it possesses a limited range of applicability." From this view I must dissent. If the ovum is only loosened from its attachment by the previous uterine contraction, the measure will succeed, and lax abdominal walls are not a *conditio sine qua non*. Let me cite a case occurring in my practice.

Some time last fall I was called up, at a late hour of the night, and requested, by a gentleman, to visit his wife who was then suffering from a rather profuse hæmorrhage. Another physician, close by, had already been summoned to meet the emergency, and recognizing that an abortion was

* Vide *Lehrbuck der Geburtshüefe*, page 464.
† *Scanzoni's Berträge*, Bd. VII, S. 213.
‡ *Transactions of Medical Society of State of New York, 1879.*

imminent, he applied a rather inefficient tampon, composed of a few pieces of cotton loosely inserted into the vagina. When I arrived I found that the blood was coming through the tampon. Requesting the patient, therefore, to lie across the bed, with her hips near the edge, in the dorsal position, with the knees flexed, I rapidly removed the tampon, and, by digital exploration, ascertained that the os was patulous and the cervical canal sufficiently dilated to allow the passage of the finger. Pressing my left index finger in the anterior fornix vaginæ against the body of the uterus, the latter being anteflexed, and grasping the fundus through the abdominal wall above the symphysis, by a few repeated efforts I pressed the ovum from the uterine cavity into the cervix and thence into the vagina. When I withdrew my finger from the vagina I brought the ovum with it. The patient was a young lady about twenty-four years of age, and this was her first pregnancy. The patient made little or no complaint of pain in consequence of the manipulation.

It need hardly be mentioned that the method of Hœning is strictly analagous to Credé's mode of delivering the placenta by expression. If the physician, however, on reaching the bedside of the patient, ascertains that the membranes have ruptured and the liquor amnii has escaped, active interference is called for—the clear indication being to remove the uterine contents as speedily and completely as possible. Here I am heartily in accord with Dr. Fehling, with this limitation, that our operative interference must be restricted to such means as imitate, as far as possible, the natural process of detachment and expulsion of the ovum, so well described by Dohrn. This plan of active treatment we are led to adopt as well by *à priori* reasoning as by *à posteriori* conclusions.

Without entering into any elaborate argument, it is sufficient to say that where portions of the ovum are retained in the uterine cavity, there is always menace of putrefactive decomposition and absorption of its products involving a long train of morbid sequences of hæmorrhage; and especially is defective involution thereby a frequent result.

Many gynæcologists of late years, impressed with the validity of these views, have made use of quite radical measures to accomplish the end in view, and have endeavored

to popularize the curette in such circumstances. In Germany, Bœters (*Centralblatt für Gynek.*, No. 20, 1877) recommended the application of Simon's scoop very warmly. Spiegelberg had previously (1876) spoken in high terms of the value of the curette where there was adherence to the uterine wall of the portions of the ovum left behind, etc. As early as 1870, Dr. Barker, as Dr. Lusk informs us, had recourse to the curette. Dr. Mundé (*Centralblatt für Gyn.*, No. 6, 1878) suggested the use of Thomas' wire curette for the removal of the retained ovum—to be used in Sim's position. According to Carl Braun (*Lehrbuch der Gesammt. Gynæk.*, page 615), Chailly, Nélaton and others, considered the curette of Recamier useful for this purpose. It is a subject of thankfulness that the placental forceps is a thing of the past, and that only occasionally is a voice lifted up here and there in its advocacy. I have never found it necessary to use the curette, and if the method, to which attention will be directly drawn, is employed, its application will be limited to an exceedingly small number of cases—*i. e.*, to those rare instances where the retained portions of the ovum have contracted a firm adherence to the uterine tissue.

"What advantage there is," says Dr. Fritsch (*Klinick der Geburtshüef. Operat*, page 313), "in destroying the uterine mucous membrane, when the remains of an abortion are to be removed, I cannot understand. This instrumental groping around in the uterus without the aid of the feeling finger can, perhaps, now-a-days, with antisepsis, be accomplished with impunity, but can never be a judicious method."

The measure which I would warmly commend, and which I have used for years with entire satisfaction, for the expulsion of the retained ovum, is the intra-uterine injection of hot water, made antiseptic by the addition of carbolic acid or salicylic acid. The patient lies on her back across the bed, with her hips near the edge, with a bed-pan placed beneath her. The physician then takes a Davidson's syringe and attaches to its nozzle, by a piece of rubber tubing, a flexible male catheter. With the forefinger of one hand in the vagina, this can be readily guided into the os externum and thence into the uterine canal, taking care to expel all air in the first instance.

It is important, of course, that the uterine canal should not embrace the catheter too closely, as there ought to be sufficient space for the free escape of the water pumped in. The first attempts should be exceedingly cautious, and the water must not be thrown in under too great a pressure. The hot water acts in two ways—partly mechanically and partly by stimulating the uterus to energetic contraction.

This method of intra-uterine injections has the sanction of high authority. According to Dr. Münster (*Zeitschrift für Geburtsh und Gynæk.*, I Bd., 2 Hft.), they were made one of the chief resorts by Albucasius to remove the remains of the ovum which had undergone putrefactive decomposition, after abortion; and were later again recommended by Levret and Baudelocque for the same purpose. The modern improvement consists in the high temperature of the injected fluid and the antisepsis.

It is but right to state that this practice is condemned by one eminent authority. Dr. Carl Braun (*l. c.*, page 616) uses the following language: "I never permit injections into the uterine cavity with the view of loosening the ovum, or parts of it, by a powerful impulse and thereby washing them out; I earnestly advise against them, so long as remains of the ovum are retained; and only then consider them as not injurious when the uterus is empty, is relaxed, and only a gentle bathing of the uterine walls by the injected fluid is designed."

Braun's objection to the use of injections, when the uterine cavity is partially filled with the ovum or its parts, is based upon the assumption that there is danger that the fluid injected may escape through one of the Fallopian tubes into the abdominal cavity and thus cause peritonitis. The admonition of so eminent an authority is worthy to be well weighed. I believe his apprehensions, however, are groundless, if the canal is open, as it almost always is soon after the escape of the fœtus (and these are the cases we now have in view), and if, moreover, we are careful in making the first injections. The hot water soon relaxes any constriction or tendency to spasm at the internal os and its escape from the uterine cavity is thus facilitated. It is also important to introduce the index finger of one hand (the left by prefer-

ence) into the vagina, when making the injection, and press back the posterior wall from the os externum to still further promote the free discharge of the water. This finger will also detect the presence of pieces driven into the cervix as far as the os externum. Withdrawing the catheter now and using bimanual manipulation, the uterus can be depressed so as to allow the finger in the vagina to pass into the cervical canal and remove its contents—the finger acting as a hook. The hot-water injections can then be again employed until other portions are either driven into the cervix or forced into the vagina. Even if all the portions of the ovum are not expelled now, the hot water arrests all tendency to hæmorrhage, and in the course of the next twelve or twenty-four hours can again be called into play. After finishing the injection, a pledget of absorbent cotton wrung out of a $2\frac{1}{2}$ per cent. solution of carbolic acid and saturated with glycerine, is placed against the os externum. If we have succeeded in cleaning the uterus of its contents, we need not use the injections the next day; but if there is any uncertainty they should be given. It is a matter of importance that no fluid should be left in the uterine cavity, as violent uterine colic might otherwise ensue; therefore, in withdrawing the injection tube (or catheter) the hand above the pubis should grasp the fundus through the abdominal walls and force out its contents.

If the membranes have ruptured some time before the physician is summoned, and the cervix has closed so as not to allow the passage of the finger, I would most earnestly advocate the use of chloroform or ether, as Dr. Fehling and others suggest. It is then easy, as a rule, to pass the finger through the internal os and attain to the uterine cavity; so that by means of the coöperation of the other hand—acting through the abdominal covering—in bringing the uterus within easy reach of this exploring finger, the retained parts may be readily removed, either partially or entirely. In the first case, the hot-water injections are invoked and speedily complete the expulsion of the uterine contents. Those who have never made use of it will be astonished at the relaxing power of the anæsthetic, for the

finger gains admission through an internal os under its influence, where before it seemed rigidly closed. It need hardly be said that the facilities afforded for bimanual investigation are thereby greatly enhanced.

We have seen that one important indication of treatment, in abortions, is to secure perfect involution. In the use of intra-uterine injections of hot water, we have a therapeutic measure at our command incomparably superior to any other in effecting this result. Since I have appreciated their power I have never had occasion to use ergot. It is certainly a matter for congratulation to be able to dispense with the use of so nauseous a drug, and one which, no matter how administered, is apt to cause disagreeable symptoms. I would, therefore, most earnestly deprecate the practice of those who find an exponent of their views in the French author Cordes (*Annales de Gynæcologie*, 1876, October and November), who will wait, even when the placenta has undergone putrefactive decomposition, for the uterus to expel its contents spontaneously, and rely upon the internal administration of ergot and quinine to stimulate uterine contractions. Under such treatment, I have seen a patient, the subject of a metrorrhagia, protracted a year subsequent to the abortion—the uterus in a condition of subinvolution requiring a long course of treatment for its relief. In some cases, the physician does not see the patient who has aborted until a number of days have elapsed after the expulsion of the fœtus, and the os externum and cervical canal are completely closed. Under such circumstances, we must first dilate with tupelo or laminaria tents, first making them thoroughly antiseptic, and then proceed as before with the hot-water injections.

An important practical question is this: Suppose, in a case of retention of the ovum or its parts, high fever or septicæmia or perimetritis develop, shall we have recourse to active interference or not? In the discussion which took place in the New York Obstetrical Society, and to which reference has been made (Vide *Transactions New York Obstet. Soc.*, 1876–1878), Dr. Nœggerath answered this in the negative, and Dr. Thomas reported a case of high fever, due to

decomposition of the placenta, in which a consultation was held with Drs. Elliot, Barker, Emmet, and Metcalf, where his opinion in favor of active intervention was overruled, and an expectant plan pursued. Dr. Thomas justly remarked, that "notwithstanding the favorable termination of the case, he should again advocate the immediate removal of the placenta under like circumstances." Active interference is here, undoubtedly, the proper course to be pursued, and the one which I have invariably adopted with perfect satisfaction. In further confirmation of this view, I cannot do better than quote the language of Schrœder* upon this point, to which I heartily subscribe: "If the retained portions of the ovum undergo putrefactive decomposition, which almost exclusively occurs after preceding attempts at removal, their removal is doubly indicated. Nay, inflammatory phenomena in the uterus and in its vicinity, high fever and septic conditions must rightly demand the removal of the decomposed masses and the drainage of the cleansed uterus. We should not be deterred by the reflection that, in the removal of the remnants, new blood-paths are opened, which might absorb the products of decomposition. Since the removal of the foreign body, undergoing putrefactive decomposition, is the more urgently indicated the worse the phenomena are; and since, after its removal, in the repeated washing out of the uterine cavity with solutions of carbolic acid, or in its permanent irrigation in drainage, we possess a means of making the secretions of the uterine cavity innocuous." Says Kleinwächter (*Grandrift der Geburtshüefe*, p. 297), "should fever have already appeared, should inflammatory phenomena of the uterus or of its vicinity have shown themselves, the retained parts must the more quickly be removed. We observe, in correspondence therewith, that after their removal, the general condition immediately improves and convalescence soon follows."

It is not necessary to insist upon the value of the use of the vaginal douche of hot water, repeated several times daily, and continued for at least two weeks after the abortion.

**Lehrbuck der Geburtshüefe Sechste Aufl.*, p. 466.

ART. II.—**Dietetic Treatment of Intestinal Fluxes.** By E. N. CHAPMAN, A. M., M. D., Membre Correspondent de la Société Medica, Pratique de Paris, etc., Brooklyn, N. Y.

The disorders of the *primæ viæ* are not, as yet, treated in accordance with well-established principles of physiology. The old theories, those that originated in the palmy days of *contraria contrariis*, still prevail, and preclude any advance in the right direction. Vomiting, diarrhœa, dysentery, flatulence, constipation, colic, and the like are attacked, promptly and heroically, with drugs supposed to be antagonistic to the so-called disease then present. Little attention is given to the cause, less to the condition of the stomach and bowels, and none to the character of the digestive secretions.

A symptom being thus taken for the real disease, and active medication directed against it, the scene of operations is constantly changed until, eventually, by a grand conjunction of diseases, the life of the patient is placed in imminent peril, if it be not sacrificed outright by a misapplication of the materia medica. How could the result be otherwise than disastrous, unless a strong constitution come to the rescue and right itself in spite of both disease and medicine?

It is quite certain that most of the remedies employed to quiet the stomach, to check or open the bowels, to dispel gas, to banish pain, and to meet other prominent symptoms could be discarded in the treatment without serious loss to the patient. A few simple remedies are alone necessary. As to diet, one article fills the place of all others; and, not infrequently, the place of both food and medicine.

In acute attacks of vomiting and purging that promptly remove the offending matters from the digestive track, a wineglassful of milk with lime-water every one or two hours, is often the only treatment required. In other, gastro-intestinal disorders of recent origin, the same statement holds true, if mild evacuants, in imitation of the spontaneous efforts, be premised. The lime so qualifies the milk that it becomes very soothing, digestible and nutritious; and, hence, after the removal of the cause of the disturbance, the alimentary processes soon resume their proper activity. In

other cases of greater severity, or longer duration, the congestion of the mucous membrane does not subside upon the removal of the cause, but persists and gives rise to a continued flow of acid, acrid secretions. These must be corrected speedily, lest the case assume a more intractable form; if not dietingly, then by diet and small doses of calomel in purgative doses. Mercury is the great sedative of the intestinal glands, and seems, by a direct local stimulation, to restore their normal secretions. This much being accomplished, the congestion disappears and nothing remains but to give the natural forces fair play.

Some years since I was called to see a woman, eighty years of age, in consultation with a younger brother, who had never, in his student days, heard much of mercurials, except in their condemnation. The patient had been ill several days, was greatly reduced in strength, and had frequent tenesmic movements of blood and mucus. A dose of castor oil had been administered, and opiates, antacids and astringents, together with suppositories of morphia, plied assiduously. My proposition to give six grains of calomel and follow it by castor oil, if it failed to operate, was received in blank astonishment. "What!" said he, "the woman is very old and much exhausted; even now, she has an operation every fifteen minutes." The recommendation of milk and lime-water in the place of beef-tea and raw eggs, was thought equally strange and irrational.

The calomel being given, and the diet adopted, black, hard fæces were evacuated, the secretions improved and the organs of digestion stimulated. From that time, the progress to recovery was rapid and continuous.

Recently, I was called, in consultation, to see a young woman who was delivered two weeks previous of her first child. She was suffering from a violent diarrhœa, which set in several days before the labor. The cause seemed to have been a loaded state of the colon. The patient, whose movements all this while had been small, thin and frequent, was so reduced as to faint whenever her head was raised from the pillow. A fatal issue, was thought by doctor and friends to be imminent, although it was quite evident her condition had

no connection with the confinement. The treatment had been conducted on the same plan as in the previous case, everything being done to check the bowels and support the patient. I suggested three grains of calomel, rubbed up with twelve of chalk, and given in divided doses; a tablespoonful of castor oil if the powders failed to act as a purgative; five tablespoonfuls of milk and one of lime-water, together with a teaspoonful of whiskey every two hours, and the one twenty-fourth of a grain of morphia and six of bismuth every one or two hours. The calomel doing its work effectually, the result in this case was as prompt and complete as in the other.

As shown, some thirty-five years ago, by the experiments of Beaumont on St. Martin, the mucous membrane of the stomach becomes, in the first act of digestion, swollen, reduplicated and congested, and, in the second, the site of an enormous amount of secretion from its many glands. The gastric juice having dissolved the food, and the movements of the stomach passed it into the duodenum, the vascular and nervous excitement subsides, and leaves a smooth, thin, pale-pink membrane, that no longer furnishes a secretion. This influx and reflux is repeated in the normal state with each meal. In other words, the gastric mucous membrane is an erectile tissue.

If the stomach be abused, its congestion will continue during the intervals between the meals; and if it be abused continuously, this morbid congestion is converted into inflammation. Then, the gastric juice becomes so scanty, acrid and disordered as to be incapable of digesting food when it is taken.

In St. Martin's case, the mucous membrane of the stomach soon regained its normal condition, when a rigid diet was enforced, but much sooner, when a few grains of calomel were thrown into the stomach through the fistulous opening.

As has been fully shown since Beaumont's experiments, the mucous membrane of the duodenum is engaged, equally with that of the stomach, in the work of digestion. Hence, it must be equally subject to the like periodic changes and to the like morbid states.

So, also, it has been shown that the biliary and pancreatic secretions which are discharged into the duodenum, play a role not less than that of the gastric juice. The quantity and quality of these secretions are dependent on the condition of the duodenal mucous membrane.

This mucous inflammation of the stomach and duodenum, and this disorder of the gastric, duodenal, hepatic and pancreatic glands that furnish the secretions, which digest the food and render it capable of absorption, is the true pathology of a vast number of diseases, both those occurring in the *primæ viæ*, and those arising in the solids and fluids of the body. Of these, none can be completely mastered without first subduing the gastro-duodenitis and restoring the normal secretions. A sudden flux from the bowels is but the recoil of Nature against the injury that is being inflicted—an effort to restore the healthy state.

Indigestible, irritating, stimulating food always induces a morbid engorgement of the gastro-duodenal mucous membrane. Thereupon, the excessive and irritating secretions are prone to find vent. The proper treatment is to favor and even to promote their discharge and not to officiously check them by drugs. These secretions relieve the inflammation and their removal lessens the irritability of the mucous membrane, and renders it possible for a simple diet to complete the cure.

As was demonstrated in St. Martin's case, mercurials will stimulate the glands to a more healthy secretion, and unload the distended capillaries, and thus act in a line with the spontaneous efforts.

One thing is certain, the congestion cannot be persistently renewed a length of time without inducing an inflammation that will be the source of many other ailments, every one of which will defy special treatment.

Mrs. S., aet. 31, the mother of three children, had gastric fever when sixteen years of age. Subsequently, she began to be troubled, though in other respects feeling well, with attacks of diarrhœa. These, eventually, would recur three or four times a year, and continue a longer or shorter period—often several weeks. The moment she assumed the erect posture in the morning, she was obliged to rush to the

water-closet, two or three times in quick succession, and yet, until the next day, she experienced no further trouble. Invariably, she had one free, watery movement on first rising from the bed. All her movements, whether one or many, were always scalding and profuse, and often contained portions of undigested food. I began to attend Mrs. S. in 1876. At the start, I shocked her sensibilities by the unheard-of request to have a stool saved for my inspection. My object, I explained to her, was to gain a proper knowledge of what was going on in the intestinal tube. The dejection was liquid and offensive, and had a pale-yellow, almost white color, showing that the gastro-duodenal secretions were deficient and the biliary secretion well nigh suppressed.

The treatment consisted of light purgative doses of calomel, now and then, to stimulate the digestive glands; of bismuth and chalk when the fermentation and looseness were troublesome, and of milk with lime-water as the main article of diet. As the passages took a deeper yellow color and became more consistent and less frequent, fresh meats and vegetables were allowed at the mid-day meal, and gentian, quinine and whiskey were given to tone up the weakened stomach and bowels. The progress made was subject to numerous interruptions. A thoughtless indiscretion in eating, after a week or two of dieting, would re-excite the diarrhœa, and then, the old ground had to be gone over again. Still, by the experience thus gained, she was led to exercise greater caution, and to avoid glaring violations of dietetic rules.

At the end of a year, her bowels gave her no annoyance, except under unusual provocation, and even then her complaint never assumed its former severity. Usually, a temporary return to the milk-diet was sufficient to quell the outbreak. During the summer of 1880, however, while she was in the country, the diarrhœa re-appeared as of old, and persisted until her return home late in the fall.

At that time, the original treatment, more rigidly enforced, and heartily followed than before, effected a radical cure, as shown by the fact that her passages steadily maintained their normal color, consistency and frequency, even after her return to a more or less promiscuous dietary. The past winter she has not been obliged to exercise much care as to her food.

Mrs. S., aet. 65, had, since her childhood, been the subject of psoriasis. It appeared chiefly upon the outer flexures of the joints, rendering the skin thick and rough, and at times

forming deep fissures in the derma. Scrofulous and gloomy by nature, she had, since the death of her husband, six years previous, suffered from various dyspeptic symptoms. These were prone, after slight indiscretions in eating, to culminate in cramp of the stomach, vomiting and purging.

I commenced my attendance in 1877; and, thereafter, had her every three or four weeks under my charge. I met with such poor success, however, that I began to despair of ever making any permanent impression upon her many gastric and intestinal disorders. For the time being, medicine and diet acted promptly and efficiently; but as all rules were neglected when my visits had ceased, she soon induced another attack.

At length, in the fall of 1879, these gastro-intestinal disorders so increased in severity, and in the early part of the winter attained to such an intensity, that, of her own accord, she confined herself to the house and abandoned all food, except milk with lime-water. Her symptoms, January 22, 1880, when I was sent for again, were loss of appetite; distress after eating; diarrhœa; dark, slimy passages; intense and constant headache; naso-pharyngeal catarrh; purple, slightly swollen tongue; bloody discharge from the fauces; muddy urine; dry, scaly skin, and great nervous prostration.

I gave two grains of calomel every third or fourth night, at bed-time, directed five tablespoonfuls of milk with one of lime-water and a pinch of salt every two hours, and held the diarrhœa in check by a bismuth and chalk mixture. The movements, which were free, watery, scalding, and of a deep-green color, contained a large amount of mucus. As the diarrhœa abated, the bismuth and chalk mixture were replaced by gentian, quinine or brandy, but with very poor success. All tonics and all food, except the milk, excited the fermentation and diarrhœa anew, and necessitated a return to the mercurials and the antacids used at the start. The first month she took eight or nine doses of calomel, not only without detriment, but with singular advantage. In the meantime, most of her symptoms—bloody expectoration, catarrh, loaded urine, dry skin and depression of the nerve-centers—had become less pronounced, or had even disappeared altogether. This much being gained, the patient took, besides the milk, butter-crackers, Vienna bread, baked potatoes, poached eggs and roasted oysters. Still, although the movements were of a light-yellow color and free from mucus, she had a watery and profuse stool every morning.

March 9, I commenced the use of ten grains of salicin

three times a day. This medicine agreed well with the patient and seemed to give tone to the mucous membranes and abdominal viscera. At least, the secretions and excretions became natural, and the movements of a deep-yellow color and not liquid. The 15th of April, when I discontinued my visits, she was taking sparingly of fresh meat at the mid-day meal. Her skin had become smooth and soft, her tongue clean and pointed, her throat of the natural color, and her stomach and bowels properly regulated, and yet a strict conformance to dietetic rules was found to be absolutely requisite.

The following December, erysipelas appeared on the face, although her condition had been and was then as good as at any previous time. I gave her a couple of doses of calomel and fifty grains of salicin a day, and applied glycerine to the affected part. The inflammation of the skin, spreading but slightly, disappeared in a week.

Quinine and whiskey soon restored her strength. At this date, July, 1881, the old symptoms have not returned. As, however, the slightest indiscretion in eating disorders her stomach, she still follows the milk and vegetable diet, and takes meat once a day only. From the patient's age, and the long hold that disordered digestion and assimilation have had upon her, it is not probable that her digestive functions will ever regain their original activity.

Mrs. R., aet. 62, had, when twenty years of age, a severe attack of dysentery. This left her with a weakness of the bowels that continued, without change, except for the worse until I saw her November 27, 1875. At first her disease was called "liver trouble," but afterwards, when her urine had become scanty and high-colored, "kidney trouble."

She had been attended by many eminent medical gentlemen, and had, as she said, faithfully followed their directions without receiving the slighest benefit. The regulars having failed, she tried the various irregulars, one of whom relieved her of the "kidney trouble."

At length, when the habitual looseness had settled down into a chronic diarrhœa, she sought to improve her health by traveling in this country and Europe; but, in later years, she had spent the warmer months in the mountains, at the Springs, and at water-cure and other health resorts; but all in vain. Whatever place she visited, whatever remedial course she adopted, the old enemy still held its grasp upon her.

When I first saw her, she had just returned home from the Sulphur Springs, and, as a result, there were two hun-

dred or more boils scattered pretty evenly over her body. Her strength was poor, her flesh soft, her face muddy, her skin dry and scaly, her tongue coated and parched and her urine scanty and thick. Her evacuations, three or four a day, were liquid, slimy and of a dark-green color.

Whatever the attention that had been paid to medicine, change of air and scene, and to hygienic conditions, none had been directed to her food, except to advise fresh meats and to forbid vegetables. As a natural consequence, her blood seemed to be in a scorbutic state.

I prescribed a grain of calomel, intimately rubbed up with eight grains of chalk in six doses. This set the bowels in violent commotion, and induced a dozen or more operations. Subsequently, a half grain of calomel was given at intervals. Meanwhile, she took largely of bismuth. For food, I allowed nothing but milk with lime-water. Of this a small tumblerful was taken every three hours. To each a small teaspoonful of brandy was added.

It being quite evident that the patient was suffering from the want of vegetable acids, the juice of two oranges a day was directed. There was a gradual improvement, the boils disappearing, and the dejections becoming less dark and frequent, and the urine more clear and free; and yet, the diarrhœa would, off and on, return in force as of old. At such times, I was forced, in order to change the character of the movements, to resort to the powders. At length, thinking that this periodic fermentation might be perpetuated by an imperfect assimilation and disassimilation, I gave her several courses of Fowler's solution. The arsenic and the brandy were of manifest advantage. As the treatment progressed, farinaceous articles and meat broths were tentatively tried, but her bowels were so sensitive, that it was found necessary to restrict her almost exclusively to milk.

Although Mrs. R. followed this diet for four years, and she could only gradually impose any greater labor on her stomach, she steadily gained in blood, nerve and flesh, and eventually became as strong and active as most persons of her age. Since the first seven months of my attendance, I have rarely prescribed for her, and then it has been for loss of appetite, torpor of the digestion and scantiness of the biliary secretion. The bowels had become constipated instead of being relaxed.

These three cases are good examples of an irregular but persistent diarrhœa, which, though rebellious to accepted modes of treatment, were singularly tractable to the milk-

diet, together with the aid of calomel in small doses. The calomel allayed the inflammation of the mucous membrane by inducing a secretion of its glands, and the milk promoted its subsidence by reducing the labor of digestion to the minimum.

The acute form of gastro-duodenitis, so common at all ages, is promptly subdued by this simple plan, but the chronic will test the perseverance of the patient and the skill of the physician.

The morbid irritability of the part, the nerves being supersensitive and the capillaries torpid, tends to precipitate a relapse, and is certain to do so unless dietetic rules are carefully followed for months.

The abdominal viscera doing their work under the guidance and impulse of the ganglionic nervous system, are bound together in a close bond of union. This constitutes so intimate a relationship, that a disorder of one is reflected to all the others. The skin and kidneys being unable to purge the blood, as is seen in fevers, induced by the absorption through the lungs of certain morbid particles, the whole mass of the circulation is poisoned. Then the liver ceases to form bile in due proportion, the digestion fails and the gastric and duodenal mucous membrane become inflamed. Now, secretion and excretion are at a standstill, and the whole economy is crushed down under a heavy burden. Under such circumstances, mercurials do not act happily; they fail to reach the first cause.

Mrs. W., aet. 63, of robust constitution but weakened by confinement in-doors and overwork at corset making, had erysipelas of the leg in February, 1879. This, as it did not involve the deeper structure, disappeared in a few days. In September following, she was attacked with a high fever and violent vomiting and purging. I gave one or two mercurial purges and ordered milk with lime-water as her sole diet. The stomach continued to reject both food and medicine, and the bowels to act even more frequently than before. Whatever was given to allay their irritability seemed only to add to it At length, I concluded to discard all medicine and give her nothing but milk with lime-water, and of this, only a tablespoonful at a time, at intervals. Gradually, the milk was increased in quantity; and, when the stomach had

become quiet, a small proportion of whiskey was added; but she was well on the road to recovery before any other article, either of food or medicine, was tried.

This patient, though she was advanced in years, and placed under adverse conditions, went through this fever which she contracted while visiting the Exposition at Philadelphia—a fever of so low a type, that three weeks of the time is now to her a blank—by the aid of so simple a thing as milk mixed with a sixth part of lime-water. The whole neighborhood was up in arms. "It was absurd for a doctor to give no medicine, and more absurd for him to feed an adult on baby food." Even when they saw the patient improving rapidly, they still asserted that I was starving her to death. My attendance covered nearly four months.

Since her recovery, which is now three years and a half, this woman's health has been perfect; is now, in fact, much better than before her illness.

In cases like the above, in which the entrance of a poison into the circulation is the original source of all the symptoms, it is useless to anticipate much good from mercurials. They do not reach the cause. There can be no better reliance than milk with lime-water, as thus the irritation of the mucous surface is allayed, the digestion set in motion, the assimilation carried on, and the natural force of the constitution brought out.

In the treatment of this case, I was under the impression, the first day or two, that I had to deal with a severe gastro-duodenal attack, over which calomel is so efficacious. Discovering my error before it was too late, I fell back upon the treatment that I always follow in typhoid fever. The result justifies the high estimate I place upon the milk diet. The intestinal mucous membrane being relieved of every source of irritation, the secretions and excretions corrected, and all the elements of nutrition offered to the blood in an assimilable form, what call is there for drugs, except those that will contribute to the one end—the removal of the *materies morbi* from the system, and the restoration of the natural powers to their proper supremacy? Thus treated, the fever subsides spontaneously from the lack of fuel, and the patient escapes those grave complications that are almost sure to arise when vitality has been much and long depressed.

ART. III.—**Deformity of Wrist as Result of a Burn—Successful Operation.** By E. A. CHANCELLOR, M. D., St. Louis.

Annie Taylor, born at Charlottesville, Va., age thirteen though apparently much younger, height five feet, two inches, limbs proportionally and symmetrically formed, weight ninety-eight pounds, skin that of a bright mulatto, with an apparent fineness, hair straight and well developed, countenance cheerful and expressive, quite communicative but naturally timid, with thin lips and no deformity of hands, save that to be herein mentioned; inherited an aptness for reading and writing, the latter accomplishment rather deficiently executed by the use of the left hand, yet in possession of intelligence much superior to her associates.

The patient is the first child of a family of seven, now in perfect health. Her father is a country politician, who is also a bright mulatto, intelligent and industrious.

The patient, accompanied by her mother, visited my father's (Dr. J. Edgar Chancellor, of University of Virginia,) office on January 9th, 1880, with the following history: "When four years old (to use the mother's expression) a 'chunk of fire' rolled down off of the andirons upon the hearth, and while the little one was in the act of replacing it, the sleeves of her dress caught on fire and all the clothing on the right side were completely destroyed. There was no one in the room except the smaller children, and hence her screams and cries were not heard; but, when discovered, her wrist and arm were burnt to a crisp."

She was under the treatment of a regular physician for eighteen months or two years, who prescribed lotions and ointments of untold numbers and varieties; but seeing only a little improvement, finally expressed the opinion that the arm and hand could not be straightened nor improved. Being naturally discouraged concerning her offspring, she suspended medical treatment for seven years and left the wrist and forearm *ad naturam*.

Having now reached the age of thirteen, she consulted my father, whose practice I was then on the eve of taking charge of preparatory to his departure for the South on account of ill health.

On examination, the patient's right hand was drawn by cicatricial tissue (tissu inodulaire) at right angles to the forearm; the wrist joint was partially dislocated with a luxation upwards of the os magnum, thus rendering the joint perfectly immovable by patient or an observer; tenderness was percep-

tible over the head of the ulna and os magnum; there was no swelling nor fluctuation about the wrist, but the skin was tensely drawn over the entire joint; the muscles of the forearm were flabby and atrophied. The elbow-joint was flexed and extended with pain and difficulty, so firm were the cicatrices which extended up the arm. At a point midway between the wrist and elbow-joint, an annular band of cicatrices had formed, giving the appearance of an hour-glass contraction. This point was extremely sensitive to the changes of the atmosphere and to pressure, frequently ulcerating and discharging pus and serum. The circumference at this point of the forearm measured two-and-a-half inches. The cicatrices were rough, with elevations and depressions here and there, furrowed in some places with two distinct bridles, extending, from the thenar eminence to the radius, some three-and-a-half inches; from the hypothenar eminence to the ulnar bone about four inches, leaving quite a cap-shape depression beneath.

The color of cicatrices was white, with the exception of the bridles, which were the color of the skin.

On January 12th, 1880, by the kind assistance of my father, who gave chloroform, I undertook the operation by passing the point of a straight bistoury, flatwise, into each bridle

separately, glided along to the opposite side, grazing by the internal surface of the skin; having turned its cutting edge downwards, the section of the abnormal cord was made obliquely from the skin towards the aponeurosis in the direction of the elbow; the hand was now slightly extended, and by means of serrated incisions, I managed to cut through the inodular tissue without any appreciable amount of hæmorrhage, thence carefully dissected the lips of the wound a little on each side, and on gliding the bistoury underneath, hoping to destroy the remaining retracted cords, found that lamellæ and filaments of cellulo-adispose tissue had firmly interwoven between the tendons and the annular ligaments, constituting strong inelastic bridles.

It is useless to add that after the operation, regardless of the different processes which were adopted, the cure would not be obtained, if bandages, apparatus and suitable dressings did not come to its aid; so by means of a common splint (trough like), with a joint at its outer third, and having attached a male and female screw, extension was proceeded with as rapidly as the feelings of the patient would admit; placing the splint, well padded, on the palmar surface of the hand, extending from the tip of the fingers to the elbow by means of turns of bandage properly arranged; the dressing, consisting of lint and carbolized oil, was freshly applied every other day, at which time the joint was brought into its full extended position, and would exercise it by forcibly flexing and extending, much to the discomfort of the patient.

Within seven weeks the wound had kindly healed, and the carbolized oil was substituted for a liniment, which was used once, daily, together with *massage*. The mother continued to apply the splint fully extended, but came to the office twice, weekly, for "a little fun," as the patient expressed it.

In the early part of the summer, I lost sight of the case, who had progressed so nicely that she wished to discontinue using the splint. So tense was the contraction by the cicatricial tissue and flexors of the forearm, that the os magnum of the wrist-joint was dislocated and a new socket had formed. By constant use of a compress of lead-foil, this difficulty was overcome in the treatment.

On November 14th, 1880, I am informed that the patient wears the splint only at night; the arm and hand are very serviceable, with a very slight deformity. She can now sew, write, wash, etc., and, with ordinary attention, the arm will be *restored entirely* to its usefulness and symmetry.

515 *Olive street.*

ART. IV.—**Potassium Bromide in Orchitis and Inflamed Breasts.**

By J. GRAMMER, M. D., Halifax Courthouse, Va.

In a late number of the *St. Louis Medical Brief*, I noticed an inquiry as to the treatment of orchitis. Among the half dozen or so answers, there was no reference to potassium bromide, which, for the last ten or fifteen years, I have been using with invariable success, as a remedy for inflammations of the testes and mammæ. Upon inquiry amongst those of my *confréres* to whom I have access, to my surprise, it appeared that none of them were acquainted with its efficacy. Having answered the *Medical Brief* inquirer through its pages, I now take the liberty of sending this to the *Virginia Medical Monthly*, in the hope that the information may be of use to some, if not all, of its readers. Perhaps it will be new to many of them, though some must surely be acquainted with it, as I received it from a brother practitioner years ago—from whom, or when, I cannot remember.

When consulted in time, I find nothing else necessary, either in orchitis, or milk breast, but potassium bromide, in five-grain doses three times a day, or smaller doses, more frequently repeated. In advanced or complicated cases, of course, auxiliary measures should be used, if only as a precaution, or to expedite the cure; but I have never had the bromide to fail me, even when used alone.

In orchitis, a suspensory should always be worn.

In some of these cases, I have seen the disease held in abeyance for weeks, when the patients would persist in the grossest imprudence, in walking and horseback-riding. I rarely restrict them in diet. Yet even these cases eventually recovered, without suppuration or atrophy—neither of which results have I seen, since I have used this remedy.

Such exaggerated praises of certain remedies, I know, are very common in the medical journals, and are very often found fallacious; but I am sure this will not be the case in the present instance. Chlorate of potash is not more prompt and sure in ptyalism, cancrum oris, etc., than is the bromide of potassium in these cases.

I have had no opportunity to test it in the metastatic orchitis of mumps, but am sure it will prove as useful as in the ordinary cases; and though it is a specific inflammation, I shall expect to find it efficient in the next epidemic forms of parotiditis I may meet with.

I have seen but one case of mammary abscess since I commenced the use of the bromide of potassium for such cases, and that case occurred not very long ago. The abscess had already pointed when I first saw it. I opened it, and prescribed potassium bromide, gr. ij, every three hours during the day; and in less than a week her husband reported the patient well. This, however, was not a fair test of the effect of the bromide on a mammary abscess, for there was no infant to complicate or irritate the inflammation. It was to me a unique instance of the secretion of milk during pregnancy. The woman was four or five months advanced with her fourth child, and she stated that, being habitually rather irregular, she always recognized her pregnancy by the appearance of milk—the secretion of which thenceforth continued.

The *modus operandi* in these cases, I must leave to deeper delvers in our science to explain. It is generally held, I believe, that potassium bromide owes its sedative effect to its constringing influence upon the vessels of the brain. If it has this effect upon the fibres of the cerebral vessels, it ought to be in the same manner that it controls and aborts inflammation in these special glands; and if in the circulatory systems of these organs, why not in the blood-vessels of the whole body? Is there any histological difference between the blood-vessels of the tissue masses, and those of the mucous and serous membranes which would prevent the same action in the one as in the other?

What an immense stride in therapeutics we should make, if we were to find that potassium bromide would constringe the blood-vessels, and cure the inflammations of the whole body! But, alas! Our knowledge is too limited, and we see too darkly through the glass of scientific truth, to be able to count upon the most logical train of reasoning, when our premises are not better assured than they usually are.

Proceedings of Societies.

King William County [Va.] Medical Association.

(Specially reported for the VIRGINIA MEDICAL MONTHLY by the Secretary, GEORGE WILLIAM POLLARD, M. D., Aylett's P. O., Va.)

The regular meeting of the King William County Medical Association on the first Thursday in August, 1881, was held (by invitation) at "Montville," the residence of Col. William R. Aylett.

Typho-Malarial Fever.—Dr. J. T. Jones, in opening the discussion, said: "The disease chosen for our consideration to-day is typho-malarial fever, a name which indicates fever resulting from the action of two poisons simultaneously in the system. From our own observations, and all we have read on the subject, we are disposed to think that the fever under consideration is essentially to be considered in practice as the fever resulting from the typhoid poison, modified in some degree by malarial poison, but not materially affecting the treatment." He then entered at some length into a consideration of the clinical history, diagnosis, prognosis and treatment of typhoid fever, giving the history of a severe epidemic that occurred in his field of practice some twenty years ago, his diagnosis being confirmed by *post mortem* examination in the first case—the anatomical characteristics of the disease being well shown in the lesions in the intestinal canal. The epidemic was confined to the negroes on two large farms, and was very fatal—nearly all the first cases proving fatal. After a time, the poison seemed to lose some of its force, and the cases were not so severe. One well marked case occurred on a neighboring farm which did well. The doctor thinks this sporadic case, being remote from the poisonous centre, did not get a sufficient dose to prove fatal. Near about the same time a severe epidemic of fever broke out in King and Queen county, in which both white and colored were attacked. The virulence of the fever poison was painfully manifest in the number of fatal cases, and in the severity of the disease as manifested in the formation of abscesses, and many other of the most painful symptoms common to this disease. Continuing, the doctor said: "I think both of the above-named epidemics arose from the accumulation of decomposing filth around negro quarters." He does not consider the disease as contagious, but thinks it can, under certain circumstances, be communicated from the sick to the well. In the epidemic alluded to, the fatal cases

seemed *all* to result from the *intensity of the poison*, notwithstanding Dr. Flint's assertion that death is rarely due to this, but to accidental causes, as pneumonia, peritonitis, etc.

After alluding to the self-limited nature of the disease, the doctor said: "The prominent indications to be met in the course of this fever, are to diminish increased heat, reduce the frequency of the pulse, tranquilize the nervous system, and to promote the elimination of the poison from the system by the skin and all the emunctories. Hygienic and supporting measures form the most important part of the treatment." After briefly alluding to the various individual remedies that have been recommended in this disease, and the great importance of fresh air, he thus concludes: "It seems to me that a sufficient dose of the fever poison in relation to the strength of the constitution, will kill anybody. A dose that will kill a weakly person, will not destroy a strong one, but if this strong one had a sufficient quantity of the poison in his system to overpower the conservative efforts of his system, he must of course succumb. And this seems to me true of all diseases which we call idiopathic, or having as their proximate cause, the existence of a specific poison in the blood. It is impossible for us to decide when this fatal dose may exist, and hence the necessity of great care on the part of the physician to avail himself of all means to support the patient and aid nature in bearing the system through the storm. The point is, to buoy up and sustain the system through the breakers that it may reach the shore; and proper treatment, skillfully carried out, may mark the turning point in many cases."

Dr. W. A. Mitchell exhibited a *uterine polypus* which he removed in 1877. One was *expelled* from the same patient in 1875, and she is now under treatment for the third one.

Dr. John Lewis read a paper on the *Etiology of Diseases*, supporting the theory of contagium vivum and germ-life.

Dr. B. Richards spoke at some length against this theory and the doctrine that "malaria" is caused by heat, moisture and vegetable decomposition. (Having been called to a patient in the midst of Dr. Richard's remarks, am unable to give a synopsis of them, which I regret.—*Reporter*).

Dr. Whiting, in reply to Dr. Richards, said that some poison received into the system produced all diseases, and it made little difference by what name it was called.

Dr. Richards exhibited a piece of bone taken from the femur of a little boy, whose case was reported several meetings past, as an interesting one of fracture. He also reported

a case of quite a large discharge (?) of *worms from the right ear* of a boy. Autopsy revealed the middle and internal ear destroyed.

(It is to be regretted that no description of these "worms" was given, and no hint as to their probable nature and origin. —*Reporter.*)

After adjournment, the Fellows of the Society, together with several gentlemen of the neighborhood, sat down to a sumptuous dinner, garnished with choicest wines, and graced by the presence of the Colonel's estimable lady and two charming daughters.

Analyses, Selections, etc.

Importance of the Early Recognition of Epilepsy.—Dr. E. C. Seguin, of New York, presented a paper of much practical importance, on the subject named above, to the Connecticut Medical Society, which is published in full in its *Proceedings*, 1881.

Most cases of epilepsy are allowed to go on for months or years without a correct diagnosis and proper treatment. The mistakes of this sort are often committed by leading practitioners. Their errors are not due to carelessness or ignorance, but to a too ready acceptance of medical laws which pass current, yet are wrong.

In most cases, even the first attacks of epilepsy, of grand-mal, and of petit-mal, can be recognized as epileptic. He then relates cases in which the grand-mal or regular spasmodic attacks were allowed to go on without proper treatment for want of a correct diagnosis. These cases (which we omit here for want of space) indicate that the error usually committed in judging of the true nature of first epileptic seizures is in considering them to be sympathetic convulsions, due to remediable causes—in other words, eclamptic attacks.

This capital diagnostic error, Dr. Seguin thinks, is founded upon two erroneous conceptions:

1. A physiological misconception. In the first two years of life there is great convulsibility; the spinal axis is excessively irritable, and many causes, local, diathetic and thermal, may produce convulsions. Thus pneumonia, exanthemata, infantile spinal paralysis, intestinal worms, gastric irrita-

tion, gingivitis, sexual irritation, etc., may cause convulsive attacks, which are usually called eclamptic. If the cause be removed, such attacks do not recur. In the third and fourth years of life, more or less rapidly according to the constitution of the child, this mobile state of the spinal axis diminishes, the inhibitory cerebral influence is more and more shown, and the tendency to reflex spasmodic manifestations almost disappears.

The misconception lies in admitting beyond the truly infantile age (3 to 4 years) a liability to symptomatic or eclamptic convulsions. There are exceptions, of course; some few children, and even adults (especially females), show convulsibility, but Dr. Seguin believes that it may be stated as a law most useful in estimating the significance of a first fit, that after the third or fourth years eclamptic attacks (except from uræmia) are excessively rare. A first rule for the study of convulsions then is, that convulsibility diminishes rapidly after the third year.

2. An etiological misconception, consisting in over-estimating the exciting powers of local, internal peripheral causes. The doctrine of reflex neuroses, reflex neuralgias, reflex spasms; reflex paralyses, and of reflex psychoses has fallen from the very high standing it acquired, mainly under the influence of Brown-Séquard, some fifteen or twenty years ago. Reflex diseases of all kinds are now rarely reported by reliable observers, and more especially is this true of paralysis. That there are reflex nervous diseases Dr. Séquard recognizes, but he claims that they are not by any means as common as is usually believed.

More especially would he maintain this with respect to convulsions occurring after the third year of life. Cases of convulsions, or epilepsy, in individuals above three years, due to cuts, blows, worms, adherent prepuce, etc., etc., abound in older medical writings, books and journals: but in the last ten years, physicians have become much more guarded, and such cases, when reported, are considered very interesting because of their rarity. Leaving out injuries about the head, Dr. Seguin is not sure that he has met with such a case.

He would suggest as a second safe rule in studying first convulsions, that after the third year of life, local irritations, internal or external, are not likely to cause convulsions without the existence of a morbid state of the nervous centres, inherited or acquired.

The terms eclamptic and epileptic as applied to convulsions accompanied by loss of consciousness, have been the

source of great confusion. The words are often used as if they designated different symptom-groups, whereas, in reality, as sanctioned by observations and by the best authorities in our art, they mean the same symptom-group, occurring under different conditions. He might support this statement by numerous citations, and by a minute description of a variety of attacks of each kind, but he would content himself with giving the opinion of a few authorities.

In the first place Professor Trousseau says: "I have often known epilepsy and eclampsia to be confounded one with another, and I have also said that this confusion is almost inevitable, because, if we study only the convulsive manifestations of these two affections, they are indistinguishable. If you observe a woman attacked with eclampsia in the eighth or ninth month of pregnancy, or during confinement, or a child who is convulsed either at the beginning of an eruptive fever or during dentition, however you may be on your guard, however careful you may be in your observations, you cannot make out any [symptomatic] differences between these attacks and the convulsive form of morbus caducus."

Dr. Day, in the recent edition of his excellent work on Diseases of Children, quotes with approval Trousseau's statement as to the similarity of eclamptic and epileptic attacks—the latter being the former repeated in a series; and adds when speaking of eclamptic attacks: "In many respects they (the convulsions) resemble epilepsy, from which indeed they cannot invariably be distinguished."

Dr. Otto Soltmann, of Breslau, in treating of epilepsy, says: "The eclamptic attack cannot be distinguished by its symptoms from the epileptic attack."

Nothnagel writes as follows of eclampsia in Ziemssen's Cyclopædia: "What is there now remaining of what was formerly recognized as eclampsia? Are we altogether justified in still retaining the name? We believe so, and are of opinion that the title of eclampsia should be reserved as the name of an *independent affection*, which it is true can at present only be defined by its clinical symptoms. We propose that the designation eclampsia should be made use of for those cases of epileptiform spasms which—independently of positive organic diseases—present themselves as an independent acute malady, and in which—so far as our present knowledge allows us to judge—the same processes arise, generally in the way of reflex excitement, and the same mechanism in the establishment of the paroxysms comes into play, as in the epileptic seizure itself. In this way, as we see, *the*

designation of eclampsia as an acute epilepsy finds greater authorization [the italics are Dr. Seguin's]; at the same time it is distinguished from true epilepsy by the lack of a persistent central change, which latter impresses upon epilepsy the character of a chronic condition. In the case of eclampsia, where this chronic change is absent, the manifestations, the seizures, disappear with the removal of the exciting irritation."

We may sum up these statements of high authorities by saying that eclamptic and epileptic attacks are similar in character and practically indistinguishable.

This being admitted as true of the *symptoms*, we yet have the two *affections*, eclampsia and epilepsy, to differentiate: and it is this differentiation or differential diagnosis which is all important for the welfare of our patient. It is not so very serious to consider eclampsia as epilepsy for a few months, but the converse mistake, the mistake which I believe is common, is in one sense fatal to the patient. The non-recognition of epilepsy allows of recurrence of paroxysms and the establishment of the epileptic habit.

Upon what grounds can a reasonably accurate diagnosis be made? This can generally be done by attention to the physiological law of convulsibility, and to the relatively small importance of local irritations, internal and external, after the third year of life, or a cause of eclampsia. These two points have already been referred to at some length.

A third rule which must be borne in mind is that at almost any period of life uræmia may cause eclampsia. This is more especially true of young subjects who have just passed through scarlatina with nephritis, or who have had symptoms of renal disease from any cause; and also of adults, males between thirty-five and fifty, who are liable to contraction of the kidneys.*

A fourth diagnostic rule is that in adults particularly, syphilis may cause eclampsia (*i. e.*, acute, curable epilepsy).

To apply these principles to practice, let us suppose cases of first convulsions with loss of consciousness, occurring in subjects of various ages.

1. *Convulsive attacks in young children, under three years of age.* If we can exclude injury to the head, gross organic disease of the brain, and microcephaly from premature closure of the fontanels, the attack is probably eclamptic. This probability is increased to almost a certainty if we can accu-

* Plumbism and alcoholism sometimes cause eclampsia, but probably in most by producing renal changes and uræmia.

rately determine the existence of sufficient systemic or local causes for the attack. Upon this question of sufficiency of the cause much might be said. Often the physician is satisfied with merely determining the coincidence of a fit with a local irritation, or a supposed local irritation. Soltmann* is especially emphatic in his advice to judge these co-existent conditions carefully before pronouncing them to be causes, and the attacks to be merely eclamptic.

The occurrence of a single fit enhances the probability of its becoming the first seizure of epilepsy.

The occurrence of repeated attacks in the course of an hour or two, makes it probable that the convulsions are caused by fever, by gingival, gastric, or intestinal irritation, or perhaps by some peripheral cause.

2. *Convulsions in young persons from three to fifteen years of age.* These are quite certainly epileptic, if we can exclude renal disease. The occurrence of attacks of an eclamptic nature (*i. e.*, ephemeral and curable) in such subjects from intestinal or gastric, or sexual irritation is exceedingly rare, and the mistake, the terrible mistake of assuming such to be the pathology of convulsions is frequently made, even by experienced physicians.

Dr. Seguin repeats that convulsions from worms, from indigestion, from lithæmia or oxaluria, in youth, are excessively rare, and that in the treatment of such a case the patient should be given the benefit of the doubt and put upon a rigid anti-epileptic treatment by means of bromides, while the treatment for the supposed local or diathetic cause is being carried out.

3. *Convulsions in adolescents and adults.* These are to be judged by the same general rules as No. 2, with the addition that two morbid conditions should be carfeully searched for, especially when the first convulsion occurs after twenty.

a. Syphilis. This may be acquired at almost any age, but especially after sixteen or eighteen years: nothing in the social standing of the patient should deter the physician from inquiring deliberately yet deeply into this question.

b. Chronic interstitial nephritis, more particularly in subjects of forty years and upward. The presence of a hard pulse, of over-action and hypertrophy of the heart, the passage of an excessive amount of urine of low specific gravity, sometimes containing albumen (never much) and a few hyaline or granular casts—these symptoms go to justify the

* l. c., pp. 49-54.

diagnosis of contracted kidneys, consequent chronic uræmia, and the recurrence of eclamptic attacks.

If we exclude these two pathological conditions, a convulsion in an adult, especially if a single fit, is quite certainly epileptic, and will be followed by others, after a lapse of time which may vary from a few days to more than a year. Of course the existence of a long interval of health after one epileptic attack in no wise justifies a physician in pronouncing the disease not to be epilepsy.

To sum up the early diagnosis of convulsions:

1. After the third year such attacks are very probably epileptic. The possibility of uræmia and of syphilis should be borne in mind and a careful investigation made as to their existence.

2. Under the third year the attack may be eclamptic, probably is, but its causes should be carefully judged.

3. In many cases under three years it is well to give a moderate amount of bromide of potassium (or sodium) with regularity for several months after a convulsion; that is to say in such cases as do not present an evident, indisputable pathological condition sufficient to cause eclampsia.

4. In all cases above three years the bromide treatment should be at once instituted and kept up for many months. This will not interfere with the treatment by appropriate remedies and by hygiene of gastric or intestinal indigestion, of worms, of sexual irritation, of uræmia, and of syphilis.

Besides bromides, a variety of treatment is demanded by different forms of epilepsy according to the pathological condition, but the consideration of these indications is foreign to this paper, whose main object is to encourage the prompt and proper treatment of epilepsy at the earliest possible moment, viz., in most cases after the first attack.

Dr. Seguin now passes to the consideration of the diagnosis of petit-mal, consisting of epileptic vertigo (so-called), and of imperfect or aborted spasmodic seizures. In this category he does not include the localized or hemiplegic epileptic spasms.

Petit-mal or epileptic vertigo is often allowed to pass for vertigo caused by indigestion. Physicians are very loath to call these slight attacks by the terrible name of epilepsy, and so delude themselves and their patients until the recurrence of a convulsive attack settles the question. Even when the attacks are recognized as epileptic, a most unfortunate statement is made that they are slight and manageable attacks; whereas the truth is that petit-mal is much more intractable

than grand-mal, and often leads to more evident mental deterioration.

The correct diagnosis of petit-mal is feasible, providing a good description of the seizures be had.

From *vertigo* it is distinguished by:

1. The subjective phenomena. In vertigo there occurs a sensation as if the patient himself or objects about him were whirling around; in petit-mal there is no such feeling, but a sensation of confusion or of something rising from the throat or epigastrium to the head. In some cases there are no sensations in the head, beyond the consciousness that something is wrong for a moment.

The sensations of petit mal are, moreover, usually sudden, or even flash-like, whereas in vertigo, cardiac syncope, and some hysterical attacks there elapses quite a time in which the attack is growing. This suddenness of onset is very characteristic of minor epilepsy.

2. By objective phenomena. In faints and in some hysterical states the patient is limp from the start, and in other hysterical attacks there is spasm lasting many minutes. In petit-mal there is nearly always spasm, but not as in grand-mal. It usually expresses itself by a momentary rigidity of the whole body, with staring eyes and wide pupils. To express it otherwise, there is for an instant an unnatural immobility; the patient is, as it were, petrified for a few seconds. The friends of patients will usually accept the suggestion that the patient is statue-like in the attack.

It is to be borne in mind that in some cases the patient keeps his equilibrium, and even continues to walk. Nearly always, however, the action which the patient was doing at the moment (eating, talking, walking) is impeded or interrupted, to be resumed naturally after a few moments.

Some of these attacks of petit-mal are literally like a flash, just a moment's obscuration of consciousness. The consciousness is wholly lost in the various forms of petit-mal; though many patients will claim the contrary. The truth is usually easy to learn from the patient or friends of the patient, and is at once evident if you happen to witness a paroxysm. Dr. Seguin is in the habit of not relying upon an epileptic's statement that he is conscious during an attack without sufficient corroborative testimony.

The dilatation of the pupils and their immobility, and the open state of the eyes, are capital symptoms.

In *syncope* and *hysteria* the eyes are closed and the muscles limber. The eyes in hysterical "faints" present an almost

pathognomonic appearance; they are rather tightly closed, and present vibrations or quivering motions due to the prolonged effort at closure. In either of these conditions is the pupil fixed and widely dilated, as in epilepsy; this is a symptom which cannot be imitated.

Vertigo from gastric disorder is characterized by a sense of whirling in the head, and often a sensation as if the ground were opening in front of the patient, or falling away from before him, with impending precipitation. The observer notices no dilatation of the pupils, or staring, or momentary stiffness of body; the patient can speak at any time. In severe cases the vertigo is very frequent and is produced by the least motion.

Immediate attacks, in which there is some jerking of one of the limbs, or in which the patient says or does something odd. In some cases the patient will rise suddenly from a chair, walk rapidly about, muttering something. In other cases the patient will lie back in his chair with the epileptic facies and jerk both arms or the limbs on one side of the body for a few moments. In other cases the patient being out of doors walking in the street loses himself for a few blocks, and is surprised at his change of location. In other cases there may be incoherent or semi-coherent talking. Other patients simply stare and make swallowing movements, with or without drewling. Other patients fumble and fuss about with their hands while staring and unconscious. The unconsciousness and the attendant pupillary phenomena are the chief diagnostic symptoms in these cases; but a very important element in the differential diagnosis between these attacks and hysterical ones is that the latter present variations each time, whereas the mixed epileptic seizure is almost a stereotyped performance; one or two sets of movements being done by the unconscious subject.

Still other cases of non-spasmodic insanity occur in the shape of periodic or paroxysmal attacks of mania or melancholia. In some of these cases the careful observer finds that a nocturnal fit or an unobserved diurnal paroxysm ushers in the psychosis; but in other cases the mental disorder appears in a periodic epileptoid manner, and convulsions or petit-mal make their appearance later on.

Petit-mal, especially the flash-like form, is exceedingly rebellious to treatment. Spasmodic attacks, even the most severe fits, can nearly always be controlled by a proper dosing of the bromides; they may even be suspended for months and years; but we have little control of the minor manifestations of the disease.

Still in all forms of epilepsy the date of its recognition as epilepsy is an all-important factor in prognosis. By repeated seizures a condition of the nervous system (epileptic centre?) becomes established, which we designate as the epileptic habit, a condition which explains the remarkable fact that in some cases of symptomatic or reflex epilepsy the attacks continue after removal by surgical means of the morbid focus whence the attacks seemed to be produced. By instituting treatment very early, if possible after the first or second attack, we eliminate this factor, and the chances of cure are greatly increased.

Membranous Croup Treated by Pilocarpin.—D. W. Prentiss, A. M., M. D., Professor of Materia Medica and Therapeutics in the National Medical College, Washington College, D. C., in the Philadelphia *Medical Times*, August 13th, says: Dr. George Guttman, of Cronstadt, obtained very favorable results in the treatment of a large number of cases of diphtheria by pilocarpin. His observation was to the effect, not that the drug exerted any specific action over the disease, but that it apparently loosened and softened the false membrane by its action upon the secretion of the mucous membrane, so that the false membrane was more easily expelled. His report was followed by one from Lax, who treated ten cases of diphtheria by pilocarpin exclusively, all of which recovered. Six of these were very severe, and in two death was expected nightly. Still more recently, Dr. Ed. C. Wendt, of New York, reports three cases (*Medical Record*, April 9, 1881) in which, after other remedies had failed, pilocarpin was given and recovery followed. On the other hand, however, Dr. Neumeister has published an account of twenty-eight cases of diphtheria treated by pilocarpin with rather unfavorable results. Five of the cases were adults, and the others children. The adults seemed to be influenced favorably; but in the cases of the children thirteen out of the twenty-three died; and in eight, bad effects of the pilocarpin were observed. Neumeister's conclusion is that pilocarpin is a dangerous remedy with children, and that its value in diphtheria is not sufficient to justify its use. In a disease so fatal as diphtheria,—especially that form known as *membranous croup*—any remedy which promises to avert the usual distressing termination is welcomed with avidity by the profession. In the question under consideration the preponderance of evidence seems to be in favor of pilocarpin. The success of Guttman, Lax, and Wendt has been much more

marked than that of Neumeister; nor have they observed any of the unfavorable effects claimed by Neumeister to follow in its use. Undoubtedly pilocarpin is a powerful drug and capable of doing mischief, but Dr. Prentiss' observation coincides with that of the first-named observers,—that its effects can be regulated and controlled.

The importanee of the subject has influenced the doctor to report the following case, in the hope that it may be an additional inducement to others to give it a trial.

"Charles S., aged 14 months,—a healthy, well-developed infant, of German parentage,—was fretful and complaining for several days previous to June 9, 1881; voice and cough hoarse. June 9 the voice was lost.

June 10, *P. M.*—First saw the patient. He was lying on the bed, restless, but objected to being disturbed; breathing loudly stridulous, voice entirely suppressed. On examination of the throat, the entire fauces were found covered with an ashy-white false membrane. Very little febrile disturbance. Prescribed a mixture of chlorate of potassium and tincture of chloride of iron internally, and a one-per cent. solution of carbolic acid to be applied locally; also, in case the dyspnœa should increase, the emetic of turpeth mineral.

June 11, *A. M.*—Patient worse; dyspnœa and restlessness have increased; the emetic had not been administered; gave a dose (25 centigrams) while I was at the house. It caused free vomiting, with expulsion of several pieces of false membrane, and was followed by great prostration. So much difficulty was encountered in mopping the throat that it was discontinued, as was also the iron mixture. The following prescription was ordered:

℞. Pilocarpin. hydrochlor.....0.02 gram.
Sacchari lacti.....2 grams.
M. Fiat in chart. no. x.
S.—One every hour.

Directions to repeat the turpeth mineral if necessary. Milk punch *ad libitum*.

June 11, *P. M.*—Condition about the same as in the morning.

June 12, *A. M.*—Condition no worse. Emetic of turpeth mineral during night. Dose of *pilocarpin* doubled.

June 12, *P. M.*—Patient better; has slept most of the day; stridulous breathing less marked; more cough, and cough looser; sweating and salivation very free; dose of pilocarpin reduced to the original amount.

June 13, *A. M.*—Still better; passed a comfortable night,

sleeping all night; stridulous breathing gone; false membrane has disappeared from the fauces.

June 13, *P. M.*—Still improving; cough troublesome, but loose; aphonia still present.

June 14, *A. M.*—Still improving; slight return of the voice in crying.

June 15, *A. M.*—All the symptoms decidedly better; appetite returning.

June 18.—Since last record the improvement has been steadily progressive. No longer any sign of false membrane, and the voice has returned. The bowels, however, are very loose. Pilocarpin discontinued, and a diarrhœa mixture ordered.

When Dr. Prentiss first saw the patient he considered the prognosis very unfavorable—almost hopeless. The child was in that state so familiar to us in advanced membranous croup. The result can hardly be attributed to the two doses of turpeth mineral taken, although portions of false membrane were thus thrown out. In numbers of other cases he has used this emetic, and never but once with favorable result. In the successful case referred to, the diphtheria had commenced in the fauces and extended to the air passages. A complete cast of the trachea was twice expelled under the action of the yellow sulphuret of mercury. In the case now under consideration this did not occur. The improvement followed the administration of the pilocarpin, and was most marked when the action of that drug upon the system became decided. Its mode of action seemed to be by loosening and softening the false membrane, so that it was easily expelled by the act of coughing. The salivation and sweating produced did not distress the little patient, and were easily controlled. It caused a marked tendency to sleep.

The most economical as well as the least elegant form of jaborandi is that of infusion. This, however, in dose of from three to six grammes of the leaves is sufficiently certain in its effects. The fluid extract of jaborandi is a more concentrated form of the drug, and, if freshly prepared, is reliable in doses of four grammes. The solid extract may also be used in cases where it is desirable to give the medicine in pill form. But undoubtedly the most elegant as well as the most reliable preparation, is the alkaloid pilocarpin, either as the hydrochlorate or the nitrate. The best jaborandi comes from Pernambuco, Brazil, and is the product of the *pilocarpus pinnatifolius*. Since the development of an increased demand for jaborandi, an inferior article has been

put upon the market from the Argentine Republic, consisting of the leaves of another species of pilocarpus, which contain a smaller proportion of the alkaloid. The same uncertainty of strength would apply to the fluid and solid extracts.

In many cases where we are called upon to administer this drug the stomach is irritable and will not retain medicine. The pilocarpin salt is soluble and entirely unirritating when given hypodermically, and in the dose of one centigram (one-sixth of a grain) acts promptly, producing full diaphoresis and salivation. For hypodermic use it is best to order it in powders,—one centigram each,—and dissolve in water at the time of using, repeating the dose hourly until the desired effect is obtained. As a general rule, solutions of all alkaloids are objectionable, for the reason that they are readily decomposed. In treating young children it is often difficult, and sometimes impossible, to administer the infusion of jaborandi, or even the fluid extract. The pilocarpin may be given in dose of from one to four milligrams (one-sixtieth to one-fifteenth of a grain, in powder with sugar, and is pleasant to the taste. Dr. Prentiss sees no advantage in the combination offered by Dr. Guttmann,—with pepsin and hydrochloric acid.

The Trephine as a Preventive.—B. F. Kittrell, M. D., of Black Hawk, Miss., contributes the following paper to the *Transactions of the Mississippi State Medical Association*, 1881: At the last meeting of the American Medical Association, the chairman of the Section on Surgery and Anatomy (Dr. W. T. Briggs, of Tennessee), read an able and instructive article entitled "A Plea for the Preventive Trephine," in which he shows that the mortality following the application of the trephine has been due to the fact that the operation has usually been performed "only as a *dernier resort* when every other chance of life has been despaired of, and death is already imminent." Referring to the fact that "extensively comminuted or depressed fractures of the skull are almost invariably fatal without operative measures," he contends that "the preventive trephine offers the best chances of successful issue" in such cases, and maintains that the operation, when skillfully performed, "before the development of the secondary results of the traumatism," is "one of the safest in surgery."

My own limited experience entirely corroborates Dr. Briggs's position. I have had occasion to use the trephine but twice in fractures of the skull, and in both cases I em-

ployed it within less than 24 hours after the receipt of the injury, having regard solely to the preventive effect of the operation. The first case I reported to the late Dr. W. W. Hall, who, at that time, was reporting the "Surgical History of Mississippi" to this Association. A brief account of it will be found in Dr. Hall's Report, published in the Transactions of this Association for the year 1877. The patient recovered without an unfavorable symptom.

This was, however, a case of punctured fracture, in which variety the propriety of an operation, as a precautionary measure, is generally advocated. About a dozen small pieces of bone were removed, and the membranes of the brain were found to be intact.

My last case, which occurred very recently, was of a more serious nature. On the night of the 8th ultimo., (March, 1881), I was sent for by Dr. I J. Holman, of Hemingway, Carroll county, to meet him in consultation, in the case of a little white girl, five years old, whose skull had that evening been fractured by a kick from a mule. On examining the little patient, who was entirely unconscious at the time, I found a compound fracture of the right parietal bone, with well marked depression at the seat of fracture, and two small orifices in the scalp, about three inches apart, through which blood, evidently mixed with cerebral substance, was slowly oozing. As reaction was not established, the pulse being very feeble, and the surface cool, we decided to postpone operative procedures, until the next morning, at which time, also, we would enjoy the advantage of daylight. Early the next morning, the pulse had become fuller, and the patient semi-conscious, showing that reaction had begun. Dr. Holman administered chloroform, and I proceeded to operate by making a crucial incision, and fully exposing the seat of the injury. We found the upper portion of the posterior half of the right parietal bone badly fractured, a portion of skull about two inches long, and ranging from a half inch to an inch in width, being driven in upon the brain so as to tear the *dura mater* and allow a quantity (probably three or four tablespoonfuls) of the brain pulp to escape. I applied a small conical trephine near the edge of the fracture, and was thereby enabled to seize and remove this piece of skull, which, being entirely detached from, was overlapped by the surrounding skull. I completed the operation by elevating to its proper place another portion of the skull which was perceptibly depressed, and by closing the wound in the usual manner, Dr. Briggs insists upon the open treatment of

these wounds, but in this case I followed the advice of Dr. Gross, chiefly because I feared the formation of cerebral fungus, and hoped for a partial union of the wound by first intention. The after treatment of the case was left to Dr. Holman, who gave the little patient assiduous and skilful attention. Two weeks after the operation, I again visited the patient and found her perfectly rational, sleeping well at night, with but little fever, and having a good appetite. The sutures and plaster had not entirely prevented discharges from the wound, which was healthy in appearance, and giving vent to laudable pus. The plaster, after a few days, had been removed, and union of the scalp by first intention had occurred, as I had hoped, in the line of the incision made over the fragment of skull that had been removed. The pus was freely issuing at an opening below this point. There had been complete hemiplegia of the left side, but the little patient now had partial use of the left leg.

A New Physical Sign in Thoracic Aneurism.—Dr. Drummond, of Newcastle-on-Tyne, has demonstrated, before the Northumberland and Durham Medical Society, a physical sign which will apparently be of considerable value in the diagnosis of aortic aneurism, should it not turn out to be pathognomonic. When a patient who is suffering from thoracic aneurism inspires deeply, and then closes the mouth and expires slowly through the nostrils, a puffing sound is heard on auscultating the trachea, which is synchronous with the cardiac systole. This sound is best heard with the binaural stethoscope, and is evidently a sudden involuntary expiration caused by the sudden systolic expansion of the sac expelling air from the chest. This physical sign has been demonstrated by Dr. Drummond to be absent in cases of aortic valvular disease without aneurism, while it is present in every case of aneurism which has come under his notice since the discovery of the sign, viz., four, and he also thinks it will be of importance in distinguishing between aneurism and sarcoma of the lung.—*Dublin Jour. of Med. Science*, Nov., 1880.

Membranous Dysmenorrhœa.—A very interesting discussion in the Obstetrical Gynæcological Society, of St. Louis, is reported in the St. Louis *Courier of Medicine* (June and July), and is well worthy of being extracted entire, but we will give in abstract some of Dr. Englemann's remarks on the occasion, as found in the *North Carolina Medical Journal*, August, 1881.

A part of the mucosa itself is expelled in the membranous dysmenorrhœa; it is, however, in some cases, a very thin membrane, the uppermost layer which is composed of remarkably large cells. It varies in thickness, in different cases, from the thickness of a sheet of paper to a line, or even more than a line. I have also found it to vary occasionally in the same case; it may be thrown off heavily from the fundus, and in a more delicate layer towards the internal os. I think I have some of those specimens yet, as I collected quite a number at the time. There is nothing pathological in the appearance of the membrane; it is nothing more than a greater or less thickness of the naturally developed mucous membrane, physiologically developed during the engorgement accompanying menstruation, and it is always composed of the upper layer of large cells, and sometimes also of the middle layer, which shows a glandular structure with a good deal of recently formed connective tissue abounding in young cells. So much with regard to the appearance of the membrane. I recall to mind a case which I was called to see during a visit East, just after I had made these examinations. It was a most uncommon case. The lady was the wife of a physician, and both he and she were in vigorous health and well developed. From the time of the first appearance of the menstrual flow, this lady had been afflicted with membranous dysmenorrhœa, but the disease was not accompanied by the distressing symptoms which usually characterized it; she had no pain whatsoever. She passed then membranous casts from the surface of the uterus with the utmost regularity at each period, but without the slightest sensation of pain; marriage caused no change, but she remained sterile. I do not remember how many years, I believe it was six, that she had been married, and both she and her husband were anxious for offspring. I saw this lady in consultation with a friend after having examined a number of the casts; the womb was normal in size, I may say slightly enlarged, more like the organ of a multipara; the position was good, and the openings were wide; but at each menstrual period, before and after marriage, the casts were passed without the slightest pain at the time, and even without any menstrual suffering. All treatment possible had been attempted. I do not remember precisely what I advised at the time, but certainly an energetic and continued treatment, scarifications before the appearance of the flow and the use of the galvanic stem pessary, and the continued current during the intermenstrual period. I think he also

gave large doses of alkali at the same time; at all events, after the treatment had been continued energetically for, I think, some four or five months, she conceived, and a healthy child was born. A few weeks ago I received a letter in which the birth of the second child was announced. The casts had diminished after the birth of the first child; more I cannot say, as I have not been advised of the details of the case since. I think this case is one of interest, because the casts were passed without suffering, while usually the severest pain accompanies the expulsion of even the slightest portion of membrane, as in the instance related by Dr. Barret, where a small piece of membrane, the size of a pea, seems to have given rise to excessive suffering. I have seen a few of those cases; and I must say that I should not know what line of treatment to advocate, because in some instances the treatment may give relief, and in others it will fail. As a rule, we may say that the condition is accompanied with sterility and always with pain. This one case which I was fortunate enough to see is a most unusual exception

Dr. Boisliniere.—Will you explain how this villous appearance, this shaggy appearance of the membrane is produced? Are those extraordinary waves the plastic casts of the utricular glands?

Dr. Engelmann.—I am very glad that you have mentioned this point, because, although a very simple matter, it is not generally understood. You will find precisely the same shaggy appearance of the outer surface of the triangular mass in a decidua which is expelled in membranous dysmenorrhœa or in early miscarriage, and it could not well be otherwise. It is the torn surface where the thickened mucous membrane is severed; it is torn apart in the middle or granular layer, consisting of a meshwork of tougher tissue filled in with more delicate material. This does not tear smoothly, but leaves a rough surface, and it is this which we always notice as giving that peculiar appearance to the expelled portions of the membranes. It is the surface of the cast towards the muscular layer which gives character to the whole, as it is that which always appears. The inner surface of the cast will always be found perfectly smooth, as it is the natural surface of the uterine mucosa.

Treatment of Hysteria and Epilepsy by Bromide of Ethyl.—MM. Bourneville and D'Olier have instituted a series of researches upon the physiological and therapeutic action of ethyl bromide in cases of epilepsy and hysteria. The con-

clusions at which they have arrived are as follows: (1.) The dilatation of the pupil, which may occur at the commencement of the inhalation of the drug, is not a constant phenomenon. (2.) Complete muscular relaxation is exceptiona. (3.) The anæsthesia produced varies greatly in degree in different individuals. (4.) The temperature, secretions, a nd general state do not undergo any modification. (5.) The pulse and respiration are slightly quickened. (6.) A more or less well-marked trembling may occur in the limbs during inhalation, but it is only transient. (7.) Hysterical fits are usually arrested with ease by the administration of ethyl bromide. (8.) The onset of an epileptic attack may sometimes be arrested by giving the remedy from the tonic stage, but the inhalation of the drug is more commonly inoperative. (9.) In epilepsy, the regular use of bromide of ethyl, administered in the form of vapor every day for a period of four to eight weeks, adminishes to a very great extent the frequency of the fits.—*Le Progrès Médical*, March 26, 1881; *Therapeutic Gazette*, August, 1881.

Some of the Results of Chronic Induration of the Lung.—In a clinical lecture delivered at the College of Physicians and Surgeons, New York, by A. Jacobi, M. D., Clinical Professor of Diseases of Children, which we find in the *Boston Medical and Surgical Journal*, September, 1881, the Professor reports a case and gives some good suggestions. He says: "We have here a lad fourteen years of age, who comes to us to get relief for headache and bleeding from the nose, to which he is subject, and it must be our endeavor to find out, if possible, what the condition is upon which these symptoms depend. The history which he gives of himself is a very meagre one, and the only acute disease that he tells us of is an attack of inflammation of the lungs which he is said to have had when he was very young. You observe that he looks markedly anæmic, and that his general appearance is altogether that of one not in the enjoyment of good health.

When his chest is stripped you notice that there is more or less depression in the infra-clavicular spaces, and that there is a marked prominence of most of the external veins of the thorax. From the latter circumstance we naturally look for some obstruction in the lungs or heart, to which such a condition may be attributed. This enlargement of the veins indicates passive local congestion, and the headache of which he complains might well be dependent upon a similar condition about the head or brain. If there were, in

conjunction with this, passive congestion of the pharynx, a catarrh would result, and as the nasal mucous membrane is exceedingly well supplied with veins, the nose-bleeding might easily ensue. Epistaxis is, therefore, very common in diseases of the heart and lungs.

But this state of passive congestion is not confined to the upper part of the body. The abdominal circulation is also impeded in consequence of such disease, which produces more or less disturbance there also, as we shall no doubt find in the present instance. In boys and girls epistaxis is not at all uncommon as a result of merely sitting for a considerable time with the body bent forward at school. This is attributable to the interference with the abdominal circulation caused by the position in which they are accustomed to sit; and hence in such cases, where there is frequently-recurring nose-bleed, it is often sufficient simply to take the children away from school and allow them to run freely about in the open air.

But, as I remarked before, in a case like this, where there is chronic enlargement of the superficial veins, we must look for the source of the trouble in some disease of the thoracic organs, and we will therefore institute a careful and thorough physical examination here. Beginning with the spleen, we find by percussion that it is considerably enlarged, measuring about four inches in length. This may possibly be the result of some former disease, such as intermittent or typhoid fever (although we may have the history of no such attack), or it may be due to venous obstruction.

When we come to examine the liver we find that it is markedly enlarged, and that there is very considerable tenderness on pressure over the hepatic region. On palpation the area of tenderness is somewhat circumscribed, occupying a sort of parallelogram about four inches in length and a little less in width, whose upper corner reaches to the bottom of the ensiform cartilage, and is bounded on either side by the lower border of the ribs. When purcussion is resorted to, however, it is found that the area of tenderness becomes much greater in size, extending more than one inch lower (almost to the umbilicus), and also beyond the border of the ribs to the right, in the ordinary position of the right lobe of the liver. We should say, then, that there was some abnormal condition about the liver which affects the entire mass of the organ, which is greatly enlarged beyond its usual limits.

We notice, also, that the impulse of the heart can be perceived over an unusually large area, and on mapping out the

heart by means of its percussion-dullness, we find at once that the organ is considerably -enlarged. The dullness, however, does not extend very far to the left; it reaches beyond the right edge of the sternum. When the ear is placed over the cardiac region, we get a different murmur on both sides of the heart; but this I should conclude was due to the general anæmic condition of the lad rather than to any organic lesion. In young children, it is very rare to find sufficient anæmia to produce such a murmur, or, rather, functional murmurs are rare in young children; but here, you must remember, the patient is no longer a child. We must look, therefore, for some other cause of the cardiac hypertrophy than an organic lesion. Sometimes this condition is due to an over-exertion on the part of the heart in consequence of a long-continued obstruction of the lungs which has resulted in their partial imperviousness. On account of this the heart is obliged to do so much work in overcoming obstacles that it becomes permanently enlarged. Hence, in this case, if we should find present a pleuro-pneumonia of any extent, it would amply explain the condition of the heart.

On percussion we meet with a certain amount of dullness, both anteriorly and posteriorly, all the way down the chest on the right side; and on auscultation on this side we find also diminished respiration, both front and back, though somewhat coarser in the clavicular region than posteriorly. The signs point, then, to more or less solidification and induration of the lung, and it is altogether probable that there has been some thickening of the pleura also, though this does not appear to be the case at present. In this connection you will recall the fact that an attack of inflammation of the lungs was mentioned as having occurred in early life.

But, as has been indicated, the vena cava inferior, as well as the cava superior, is affected by this obstruction in the lung, and hence the trouble in the liver is explained. When the impediment to the circulation is very marked there is not only dilatation of the vessels, but effusion also results, so that the liver becomes permanently enlarged as well as the heart. The liver would swell very much more easily, indeed, were it not for its comparatively unyielding peritoneal covering. As it is, the latter is put upon the stretch, thus giving rise to no little pain, because it will not expand to the same extent as the liver itself.

As to the condition of the spleen found in this case, this is due not so much to the trouble in the lungs or heart as to

the abnormal state of the liver. You know that in the third stage of cirrhosis of the liver, with contraction, enlargement of the spleen is exceedingly apt to occur, and the same result has here followed the engorgement of the organ produced by the thoracic obstruction.

What the boy comes to us for is simply to have his epistaxis relieved. If this is profuse, it ought to be stopped at once, on account of the drain which is thus kept up upon his system. In such cases it is a very bad plan to wash out the nose freely with water and weak astringents, since this interferes with coagulation, which is essential for the control of the hæmorrhage. Styptic cotton (which is steeped in perchloride of iron), or the persulphate of iron would be a serviceable application. The closing up of the entire nasal tract by means of Belloc's canula is a safe procedure, and sometimes is necessary to effectually stop the bleeding. In connection with such measures we must not neglect to take care that there is no tight pressure about the body, and that the patient takes very deep inspirations, so as to fill the chest to the utmost extent, in order that there may be as small an amount of blood as possible for the nose.

The indications here are to do away, primarily, with the obstruction in the lungs, and, secondarily, with that in the heart and liver. The patient has had interstitial trouble in the lungs for twelve years, and though there is now no amphoric respiration, and not even bronchial breathing, it has been sufficient, as we have seen, to set up very considerable trouble in his system at large. If such pulmonary trouble were of syphilitic origin I would recommend mercurial inunction; but in this case there is no evidence whatever of this being the case, and such a course of treatment would not be of any service, especially as the boy is already very anæmic. On account of his anæmic condition iodine would also be contra-indicated, unless it were given in the form of the syrup of the iodide of iron. He certainly requires iron, and this is a preparation which is easily digested; but perhaps the most appropriate in such a case as this would be the pyrophosphate of dyalyzed iron. The tincture of the chloride of iron would not answer, as it is a vascular stimulant.

Then the heart needs attention. When there is epistaxis depending upon mitral regurgitation, it can often be stopped soon by the administration of iron and digitalis. A few small doses will often regulate the action of the heart in cases like this, and a lad of this age might safely take from

five to six grains of it daily, or two minims of the fluid extract three times a day. On account of the stomach I would also give subnitrate of bismuth here.

Finally, as to the liver. The possibility of the presence of hepatic abscess may have occurred to some of you; but I find now that the temperature is only ninety-nine and a half degrees, while it would no doubt be considerably higher if such were the case. But though there is no abscess, there is, as we have seen, a decided irritation of the organ, producing great swelling and consequent stretching of the peritoneal covering. In normal digestion you know that the liver will swell more or less after every meal. With such a condition as is here present there is apt to be some gastric catarrh, and therefore the bismuth will no doubt be of considerable service. Cold applications should be made over the region of the liver, and I would recommend that for the first day or two cold water should be used in this way continuously, and after that for a few hours of each day. We have thus gone over a pretty large field in connection with this case, but I trust that you will feel that the time thus devoted to it has not been altogether misspent."

Scarlatina in Charleston, S. C.—Dr. F. Peyre Porcher, under date of July 20th writes: "In our last communication we stated, with regard to scarlet fever (which has very much abated), that at the commencement of the epidemic there had been an extraordinary exemption of the colored race. This was true. The ward physicians and others note that subsequently the disease began to show itself more frequently in negroes, and some deaths have been reported among them. We have come to these conclusions: Scarlet, like yellow, fever should be treated early; efforts to control the fever should be made *from the beginning*, and the temperature, if possible, not be allowed to remain over 103° for any length of time. As in yellow fever, continued high temperature and rapid combustion lead to black vomit and to uræmic poisoning, so in scarlet fever they intensify the tendency to and the grade of the throat affection as well as the congestion of the kidneys. To reduce the temperature and maintain it at a safe standard, the best means are naturally, after a mild laxative, the *early* use of alkaline fever-mixtures containing potash, spiritus mindereri, etc., the frequent application of ice-water to the head and hands, two or three warm baths daily, and greasing the entire surface of the body. Local applications to the throat internally of Labarraque's

solution, chlorate of potash, tincture of myrrh, etc.. should also be used. This, however, is not the place to go into detail on such matters, but the above we believe to be *essential* for success in the treatment of the disease. We would decidedly favor the trial of prophylactics in all children exposed to this disease and to diphtheria."—*Med. News and Abstract*, September, 1881.

Case of Acute Chorea—Treatment with Veratrum Viride.—Dr. B. F. Gary, of Abbeville, S. C., in the *Transactions of the South Carolina Medical Association*, 1881, reports the following case: F. B., while at college the past winter, suffered from a very severe attack of acute rheumatism, and while convalescing from this disease, and when it was supposed he was nearly well, irregular movements of the muscles, so characteristic of chorea, were noticed. At first, these movements were confined to the left side, but as the disease advanced they became general. He was put upon the most approved treatment—such as iron tonics, oxide of zinc, chloral, arsenic, cimicifuga racemosa, etc. No benefit was derived from the administration of these remedies, and as the symptoms were becoming more aggravated, such as difficult deglutition, the drawing of the mouth to one side, the rolling of the eyes in various directions, flushed face, pain in the head, constant movement of the hands and feet, quick pulse, etc., threatening a fatal termination from congestion of the brain, it was determined to put him upon large doses of veratrum viride, ten drops every two hours, increasing two drops each dose until nausea, or a considerable reduction of the pulse should be observed.

Just after the administration of the fourth dose of eighteen drops, there was free emesis, and a reduction of the pulse to fifty beats, with great prostration; this, however, under a dose of stimulants, soon passed off, when it was observed that there was great improvement in the choreic movements, which just before had been so violent and serious. This treatment was continued in smaller doses, increasing the quantity in proportion to the movements induced by the chorea. The case continued to improve daily, and at the end of two months was dismissed, cured.

The pathology of chorea is very obscure, the disease usually yielding to treatment. Some cases, however, terminate fatally, especially when an adult is the subject of the attack. Such fatal terminations, it is believed, are due to emboli of the minute arteries of the corpora striata and of the spinal

cord. In the present case, there was probably a metastasis of the rheumatism to the membranes of the spinal chord, and no doubt it would have had a fatal termination but for the prompt beneficial effect of veratrum viride. The dose was large, but I have been informed by a prominent physician of Edgefield county that he gave a teaspoonful, for the same disease, successfully. Experience has taught that it is necessary to give the remedy in large and oft-repeated doses, so as to produce its specific effect, before any great improvement is to be expected.

[Dr. Gary nowhere states what preparation of veratrnm viride he used; he only says "ten drops." As, of course, it is impossible to give a powder, or a leaf or a root in "drop" doses, and from other circumstances connected with this report, we presume Dr. Gary refers to Norwood's tincture of veratrum viride. Reporters of interesting or suggestive cases should be careful to be precise in their descriptions.—EDITOR.]

Diagnosis and Treatment of Felons.—Addinell Hewson, Sr., A. M., M. D., of Philadelphia, in a paper (in the *College and Clinical Record*, August 15th, 1881) on "Clinical Facts relating to Rapid Breathing," says in regard to *felons:* In them, the general routine of practice—that of poulticing until suppuration has thereby been hastened and become well established in the theca of the tendons, or in the periosteum, or in the bone of a finger, and then, that of free incising and renewed poulticing, until the cure, such as is possible under those circumstances, is effected, is often even then by the loss of a phalanx or a joint—is certainly most tantalizing and disgusting to a surgeon.

Here, anything that will lead to a clearer definition of the stages of the disease will almost necessarily occasion a step forward as regards its treatment. In the search for such, the use of rapid breathing has afforded me invaluable assistance, and I have not ever hesitated to resort to it, even in instances of the very first indications of such a trouble coming on—where no one would ever think of, or be justified in using ether, chloroform or the like, and where no one could be justified, without such assistance, in making accurate and minute investigations involving much manipulation.

With the *insensibility to pain* produced by the rapid breathing, I have been enabled to search as long as I desired for a clear definition of the condition of the parts in all the stages of this disease, and have thus been led to the use of various

devices for the purpose; exercising, of course, in all such investigations, the greatest gentleness and care, so as to be sure of not doing any injury to the patient.

Among such devices, I will describe here that suggested to me by reading of M. Delaurier's proposal to use a conical tin tube, painted black interiorly, by means of which light can be transmitted through the parts to be examined.*

My device is a flattened conical tube of binders' board, with its base five inches in its greater and three and a half inches in its lesser diameter, so trimmed as to make its edges fit closely on my brow, cheeks and upper lip. The tube is of sufficient length to make its apex just about the distance of the range of distinct vision for me. The apex has an orifice of $\frac{1}{8} \times \frac{3}{16}$ of an inch. I made this tube of a thin piece of binders' board, 11 × 18 inches, with cleanly cut edges, by dipping it in boiling water, whereby it was quickly rendered sufficiently pliable to enable me to give it the desired form, rolling it up diagonally from one remote angle to the other, and maintaining it in that form by twine closely wound round it from apex to base, and left there until it became perfectly dry and hard. The twine was then removed and the outside margin of the board, running from base to apex, was secured fast by glue and a strip of paper over it. This made it perfectly firm, and all that was required to complete it was the trimming of the orifice of the apex, and the margins of the base to the sizes and forms before stated.

Mons. Delaurier's contrivance is evidently meant for one eye only, whereby the advantages of bioptic vision (which experience will teach every one is of the greatest importance in such explorations) are entirely lost. Making my tube to fit closely around the contour of my forehead and face, I have all extraneous light excluded then, and the necessity for a blackened interior is sufficiently done away with by the color of the pasteboard used. I have thus, in the simplest of contrivances, all the conditions fulfilled for practicing as accurately as possible this method of examining the tissues by transmitted light.

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*The following, copied from *The English Mechanic and World of Science*, for April 1, 1881, gives, as briefly as possible, an authoritative reference to Delaurier's letter in *L'Electricite*. I therefore quote it in full: "The idea of examining the body by means of transmitted light is an old one. A step toward the realization of it is indicated by M. Delaurier in a letter to *L'Electricite*. He recommends the use of a conical tin tube, blackened interiorly, the narrow end to be pressed, say against the skin of the finger, and the wide end applied to the eye, while the tube is directed towards a bright source of light beyond the finger. The tissue can thus be well distinguished."

In the instance of examining for suspected felon, the patient's finger is to be brought up to the point of the tube while it is held in the direction of a bright light, either natural, as that from a window, or artificial, as that from a good lamp or gas jet, and then pressing one's face so as to make it fit close in the base. When there is much tenderness, one will find the advantages of the preliminary resort to rapid breathing. Under it you can proceed with your explorations without any difficulty whatever. If the apex of the tube appears to be covering healthy tissues of the finger, you can readily perceive the color belonging to them—a bright pinkish red; whereas, if it is on engorged tissues, the color transmitted will be of a more purely red tint, and deepened relatively to that tint according to the engorgement. The existence of such a tint can also be readily determined by contrasting what is apparent with that from the corresponding finger of the other hand. Here the volition of the patient, preserved by the rapid breathing, comes into play, and shows its advantages over ether under the same circumstances.

If the tint perceived, although still reddish, be of a yellow hue, pus has formed in the cellular tissue around, or in the theca of the tendon. If firmer pressure of the finger against the tube removes the reddishness of this tint and leaves it of a positive yellow, the demonstration is complete of the suppuration in the theca of the tendons only, for such pressure cuts off all illumination transmitted laterally through the cellular tissue, and which might have occasioned that reddishness. Finally, if the tint transmitted under such pressure is of a dirty or opaque yellow color, one may be sure that the bone or its periosteum is the seat of the purulent formation and collection. The point of the tube must, of course, have been put directly over the seat of the morbid action; to make such demonstration, and to attain such a position for it, one has, as in the study of an object under the microscope, to slide the object in various directions on the field of the instrument; here the finger is to be moved and not the instrument. To avoid any too great pressure, and yet exclude the lateral illumination of the part before spoken of, one can make a ring of the index finger and thumb, and so embrace the point of the tube and do away with the necessity of its being pressed too hard on the parts. I have thus been enabled to demonstrate the non-existence of pus in a finger where one would have been led by the usual objective and subjective symptoms to believe other-

wise, and I have then and there been able to blight the morbid process before it reached such a stage. Such results I have effected by covering the finger completely with a thick paste of red clay, over which I applied a layer of tissue paper, retaining it by a thin layer of a roller one inch broad, making the whole firm by liquid glue, painted in strips lengthwise on each side of the finger. The purpose of using the glue is to hold the finger rigid while the earth is drying and becoming firm; and the purpose of applying it lengthwise in strips, and not all around the dressing, is to favor that drying, which would otherwise be prevented, for the glue I use (prepared with acetic acid one part to four) dries very quickly, almost as quickly as collodion; and forming an impervious layer, would, if surrounding completely the roller, prevent the evaporation of the moisture from the clay, and so prevent the earth's power of dissipating inflammatory action. The fact that such a power exists in dry, clayey earth, and requires that such should be kept in the closest contact with the parts being invaded by that action, has long since been demonstrated by my experience with its use, and make the accurate attention to all these details essential for success with it. Such power in the earth is only manifested by it in the dry state, and our purpose in applying it in the form of paste is to secure close and perfect contact, which it will retain after it has set and become dry.

With this mode of treatment I have been amazed to find what success I have been enabled to obtain. The blighting would seem to begin with the completion of the dressing. The prompt expressions of relief uttered then by the patient afford a guarantee of the desired result The continuance of such relief during the following night makes that guarantee a positive certainty; and I never, under these circumstances, feel called upon to change the dressing for eight or ten days, when, on its removal, I find a complete cure. It has all been blighted. When the pain is not removed in a short time, say two or three hours after the application of the earth, I recognize the indication as one for the removal of the dressing at once, and the use of a free incision; but this very result shows still further the value of the rapid breathing in felons. Its use makes the diagnosis of the stage more definite, and in a briefer time than that of any other way.

If I have not gained a real advantage here, I have gained one in following Delaurier's suggestion, which could not have impressed me so favorably without the effects of the rapid breathing.

Pyrogallic Acid in Chancroids.—In the *New York Medical Journal*, August, 1881, we find a synopsis of a paper on this subject, contributed by Lermoyez and Hitier to the *Bulletin Generale de Therapeutique*, May 15, 1881. The pyrogallic acid was employed in the form of a vaseline* ointment, of the strength of 1:5. Starch is added to the mixture to stiffen it, and prevent its liquefying after it is applied to the body. The formula is as follows: ℞. Starch, 40 parts; vaseline, 120 parts; pyrogallic acid, 40 parts. Care should be taken to have the ointment fresh. On exposure to the air, it soon became brown and lost its strength. It was found equally applicable to all forms of chancroid, and in all situations. It was only slightly painful, though it had a mild caustic effect when first applied. This caustic action soon disappeared. The pain produced, it is claimed, was not greater than would be caused by the contact of any indifferent body with so sensitive a sore. Under its influence the chancres, even when phagedenic, healed with surprising rapidity.

Atropia-Poisoning Successfully Treated by Eserine.—Dr. Andrew Seargent, Resident Physician, Louisville City Hospital, reports the following case:

Mr. R., aged thirty-four years, occupation saloon keeper, on the evening of July 21, 1881, took by mistake half a grain sulphate atropia and three-fourths of a grain sulphate of morphia immediately before eating supper, at 6:30 P. M. Soon afterward he discovered the mistake he had made, and went to the druggist who had filled the prescription. The druggist became alarmed, and at once gave him thirty grains of pulv. ipecac and told him to consult a physician. He went to Dr. J. A. Brady, who started him with a friend to the City Hospital, with the instruction to take active exercise as long as possible. He arrived at the hospital at 8:15 P. M., unable to walk without assistance and exhibiting all the characteristic signs of atropia-poisoning. His pulse at this time was 120 and respiration 30. The emetic the druggist had administered having failed to produce emesis, I gave him thirty grains sulphate of zinc. Ten minutes later I gave him an ounce of mustard in a strong solution of common salt followed by warm water, given freely. This soon produced free emesis, but failed to im-

*We have used pretty much this same preparation, with the substitution of *cosmoline* for vaseline—essentially the same, although we have greater confidence in cosmoline; and we can recommend the prescription for the class of cases indicated.—EDITOR VA. MED. MONTHLY.

prove his condition in the least. He grew rapidly worse, and soon became comatose; pulse 136; respiration 36; the exercise had to be discontinued. I sent a messenger for some eserine, not having any at hand, but administered one grain of sulphate of morphia hypodermically at 9:10 P. M. This produced no change in his condition, and in about fifteen minutes he had a convulsion, which lasted for some time, during which there was very decided episthotonos without any apparent rigidity of the extremities. At 9:40 P. M., his pulse was 140, respiration 9 to the minute, and very shallow. Dr. J. A. Brady, his family physician, whom I had sent for, having arrived, we held a brief consultation and decided to stimulate respiration by means of electricity, and to draw off the urine. Electricity was continued for an hour with only a slight improvement in his respiration, and in attempting to draw off the urine, we found the bladder almost empty.

At 10:45 P. M., we obtained a solution of eserine and administered one-sixteenth of a grain hypodermically. In less than ten minutes his respiration and circulation began sensibly to improve. In fifteen minutes he was able to raise himself up, and ask for a drink of water, saying that he felt as bright as a new twenty-dollar gold-piece. He now vomited quite freely, and walked to the ward assigned him, with a little assistance (11.15 P. M.).

At 1:30 o'clock A. M., I was called to see him, and found him comatose and oblivious to his surroundings. Pulse was 120, very weak, respiration 14, pupils as widely dilated as when first seen. I immediately gave him one twenty-fourth grain of eserine hypodermically. He began to improve at once, and in ten minutes was wide awake and perfectly rational. I again used the catheter but did not find any urine, although the patient thought his bladder was full.

Visited the patient at 6 o'clock A. M., July 22d, and found him sitting up and anxious to leave the hospital. Respiration deep and 18 to the minute; pulse regular and 96 to the minute; pupils still dilated, and mouth dry. Patient was unable to urinate.

I visited him again at 9:30 A. M., and found every thing normal except pupils, which were slightly dilated. Patient had not urinated, and had no desire to do so. I then ordered an infusion of digitalis with acetate of potash, which soon produced free diuresis, and in due time the patient was discharged well.—*Louisville Med. News*, August 27, 1881.

Dilatation of the Gall Bladder—Its Treatment by Aspiration.—Dr. P. H. Kretzschmar, of Brooklyn, N. Y., read a most interesting report upon this subject before the Medical Society of the County of Kings, which we find reported in the September number, 1881, of the *Proceedings* of that body, which we republish almost entire.

Enlargement of the gall-bladder may be caused either by simple dilatation of the biliary passages, due to obstruction at some point or another, or it may be local, affecting the gall-bladder only, if the cystic duct or the neck of the gall-bladder is closed. The contents of the distended gall-bladder may either consist of bile, as is the case in dilatation due to obstruction in the ductus communis coledochus, or of a watery substance, as found in cases of the other form, frequently called "dropsy of the gall-bladder." Gall-stones may be so located at the neck of the bladder as to allow the entrance of bile into the bladder, but prevent its exit. Under such circumstances, the organ may become enormously dilated, its contents being bile. If the gall-bladder is filled with pus, the name of empyema has been given to that condition.

We can, in the large majority of cases, by evacuating the contents of the distended gall-bladder, relieve our patients from the most distressing symptoms, the severe pain which naturally accompanies all cases of chronic dilatation of the gall-bladder, and by so doing prolong life. If the bile can not enter the intestines to perform its physiological functions, but is retained within the gall-bladder and gall-ducts, simply to be absorped and carried through the lymphatics into the blood, to act there as a poison, is it not advisable to remove such a superfluous substance from the body? Cholæmia or cholesteræmia—as the blood-poisoning occurring in severe cases of icterus should be called, according to A. Flint, Jr.'s experiments—might be prevented by the early use of the aspirator.

Looking over the standard medical works and some of those which relate more especially to diseases of the liver, we find but meagre and rather discouraging information about surgical interference in cases of dilated gall-bladder.

Almost all authorities speak of *puncture* of the gall-bladder, and—regarding it as a serious operation—advises us to resort to it only in extreme cases. The use of the aspirator for the purpose of emptying the distended gall-bladder, is hardly mentioned. Yet we may obtain, if we simply intend to evacuate the contents of that organ, the most satisfactory

results by its use. That aspiration, the same as puncture by trocar, may have to be repeated is obvious; but it cannot be denied that the dexterous and careful use of the aspirator is attended by much less danger, and can be much more easily employed than the most skillfully performed operation of incising the gall-bladder, as mentioned by the different writers on the subject of diseases of the biliary passages. An opening into the gall-bladder by means of the bistoury necessarily involves considerable injury to the peritoneum, and for the purpose of evacuating the fluid contents of the gall-badder, such an operation does not seem to be advisable. If the walls of the gall-bladder are not adherent to those of the abdominal cavity, the danger of bile escaping into the peritoneal cavity after incision by means of the bistoury is very great, and it would be entirely unjustifiable to perform the operation without taking such precaution as would guide us in a case of gastrotomy. In case of removal of stones from the gall-bladder, however, the opening is best made with a bistoury. The use of the trocar is objectionable for similar reasons. If we use a small instrument the flow of bile is apt to be obstructed on account of the pressure of tenacious mucus, which is apt to be mixed with the bile in cases of catarrhal or inflammatory conditions of the biliary passages and the lining membrane of the gall-bladder. If, on the other hand, a good sized trocar should be employed, the opening through the peritoneum into the walls of the gall-bladder would be quite large, and facilitate the escape of bile into the peritoneal cavity, after the bladder has been emptied and retracts. From experience gained in our case, it seems that a small quantity of bile oozing into the peritoneal cavity does not necessarily involve great danger, but such an accident should be prevented if possible.

The time has come when the internal administration of drugs in cases of distention of the biliary passages should not be exclusively relied upon. Surgical interference should be practiced much more frequently than has been done.

The *advantages* which aspiration possesses over other means of emptying the dilated gall-bladder, may be thus formulated:

I. The operation can be performed with *safety*, without taking particular precautions in uniting the walls of the gall-bladder with those of the abdomen.

II. The operation can therefore be done as soon as the diagnosis of a dilated gall-bladder has been made, if, from its size, there seems to be danger of rupture; or if the patient suffers much pain. Aside from these conditions, when

aspiration should be resorted to without hesitation, the question presents itself whether it would not be good practice to evacuate the contents of a distended gall-bladder under all circumstances, simply to remove the superfluous bile, which, being cut off from its natural destination, is bound to be reabsorbed by the lymphatics, carried back into the circulation and produce, to a greater or lesser degree, a condition which is generally known as "cholæmia."

III. A very fine trocar, such as would be of not much value in case of simple puncture, can be employed, and by means of suction even a tenacious fluid can be removed from the gall-bladder.

IV. The insertion of a small trocar or an aspirating needle is almost a painless procedure.

V. In cases of doubt as to the presence of gall-stones, a flexible probe can be passed through the canula and used as a sound.

VI. Aspiration being a safe and painless operation, it can be employed for the purpose of aiding diagnosis.

The *rules for performing the operation* are thus formulated:

I. Aspiration should not be delayed, but resorted to as soon as the diagnosis of distended glall-bladder has been made.

II. A good sized aspirating needle, or a fine trocar should be used.

III. The instrument should be introduced into the gall-bladder at a point as high up and as near to the border of the liver as possible.

IV. On withdrawing the instrument, the punctured wound in the abdominal wall should at once be closed by some kind of plaster, or by the introduction of a stitch.

V. The operation should be repeated as often as the gall-bladder becomes distended again.

VI. The common rules of surgery as to cleanliness, etc., should be strictly adhered to.

A number of cases of surgical operations on the gall-bladder, either cholecystotomy or aspiration, are reported by Frerichs and Murchison, also by Marion Sims, C. Kocher, George Brown, Keen, Lawson Tait, J. M. Luis and A. Campbell. And the following should be added to the list.

Conrad Schauz, age 46; born in Germany; married; carver by trade; with a good family history. Had been in good health until eleven years ago. At that time he suffered from a severe attack of malarial fever, lasting fifteen weeks. He says that during this sickness he had considerable pain in

the hepatic region, but he does not remember having jaundice. He afterwards regained his usual health, and never missed a day at his work-shop on that account until three years ago. During the previous five or six years he had been examined by a number of physicians for life insurance on a small scale, and had been accepted by several of the so-called mutual aid associations.

Early in the fall, 1878, the writer was called upon to attend Schauz. The patient complained of pain in the hepatic region, nausea and occasional vomiting, loss of appetite and headache. His skin had a deep-yellow appearance, the tongue was coated, the stools were clay-colored, and the urine dark-brown. On examination it was found that the area of hepatic dullness was increased, the surface of the liver had a peculiar uneven feel, and there was tenderness over the right hypochondriac region. The diagnosis of gastro-duodenal catarrh, with temporary obstruction of the billiary passages was made, and the patient was placed on appropriate treatment. The case ran a slow course; the patient suffered considerably, but, after three or four weeks, he became convalescent and made a good recovery.

Nothing was heard of Schauz until Christmas day, 1880, when the writer was asked again to see him professionally. He was found in bed, apparently suffering from a similar affection to the one he had two years previously. He gave the following history: Five or six days before he applied for medical advice he complained of constipation and flatulence, followed soon by other disturbances of the digestive apparatus, such as anorexia, frequent eructations, nausea, and a sensation of fullness in the region of the stomach. These symptoms, together with the jaundice, which had been slight at first, had increased from day to day. The skin was of a citron-like color, the tongue was heavily coated with a grayish-white, dirty-looking deposit, and the breath had an unpleasant odor. The liver was found to be enlarged and very tender; the stomach and the intestines contained considerable gas, and the surface of the body was dry and rather hot. Temp. $101\frac{1}{2}^{\circ}$. The pulse was feeble and slow; the stools were destitute of bile, and the urine was of a dark-brownish color. The patient did not complain much of actual pain, but he was much annoyed by pruritus, and had some headache. The same diagnosis was made as during the first attack, and similar treatment ordered. Moderate doses of calomel combined with jalap; diluted nitro-muriatic acid with strychnia were administered. Oleate of morphia

and mercury, and warm poultices were applied externally. The diet was carefully regulated, solid food was discontinued, and the patient was placed in the best hygienic condition possible.

From day to day, all the symptoms increased in severity, and frequent emesis became associated with those already present. The skin had, during the early part of January, 1881, changed to an almost bronze-brown color; the pruritus prevented rest day or night; the temperature varied between 99½ and 101¾°; the pulse became feebler daily; the skin had lost its former dryness, but was covered with a cold, clammy moisture, and the tongue looked just as bad as ever before.

Dr. B. F. Westbrook saw the case in consultation January 11th. The same peculiar, uneven and nodulated surface of the enlarged liver mentioned above, in connection with the first attack of gastro-duodenal catarrh, was again observed, and this, together with the general cachectic appearance of the patient, gave rise to a careful consideration of the question of existing malignant disease—the latter being finally excluded, however. The hypodermic syringe was used as an aid in diagnosis. Chloride of ammonium in doses of 15 grains three or four times daily, together with laxatives, the local use of blisters were employed for about ten days without benefit.

Under the internal use of ox gall and phosphate of soda, together with the application of hot poultices over the tender liver, the patient seemed to improve somewhat. A peculiar condition of the patient's appetite and of his digestive powers may be mentioned here. While it would have been impossible for him to retain any common substantial food, and while he had not eaten meat of any kind for several weeks, he insisted upon taking some salmon one day and pot-cheese another. Trying a very small quantity at first, he eat, enjoyed and retained after a few days, a considerable quantity of both of these peculiar articles of food without feeling any unpleasant disturbances afterwards. Buttermilk was his favored drink, and he took large quantities of it.

During the month of March, the jaundice being as bad as ever before, the patient repeatedly took short walks, and on the fourth of April he felt strong enough to present himself at Prof. Armor's clinic at the Long Island College Hospital. He suspected the existence of gall-stones, though the writer had informed the doctor that the most careful and continued examinations of the stools had never led to the finding of a stone. The exertion of going to the Long Island College

Hospital, and appearing before a large class of medical students, was too great for our patient; on the 6th of April he had a severe rigor, and on the 7th he was suffering more than any previous day during his sickness. The liver became more and more enlarged, and severe acute pain developed, vomiting and all other unpleasant symptoms reappeared with great severity. The temperature ran up to 102° and the pulse, being very feeble, counted 88 per minute. April 10th, for the first time, could the distended gall-bladder be detected projecting beneath the border of the liver as a pear-shaped, fluctuating swelling, which by careful percussion and palpitation, could be sharply defined, and after a day or two more, the exact outlines of which could be seen by simple inspection. The distention of the biliary passages caused so much pain that small doses of opium had to be administered.

April 14th, a hypodermic syringe was pushed into the tumor for the purpose of establishing a positive diagnosis. After two unsuccessful attempts, a syringe full of bile was obtained. The introduction of the needle caused no pain.

April 15th, consultation with Drs. F. W. Rockwell and B. F. Westbrook. The patient at that time was much emaciated; he felt very weak and was unable to stand up. The abdomen was distended and tympanitic to a high degree. Icterus intense; tongue badly coated; pulse feeble; temperture 100½°. The patient complained of severe pain, not only over the region of the liver, but also in the left lumbar region. The diagnosis of permanent occlusion of the biliary passages, probably caused by inflammatory disease, was made. Aspiration was decided upon with the view to relieve pain, to prevent rupture of the gall-bladder, and to prolong life.

Dr. Rockwell introduced a small-sized aspirating trocar, and *nine* ounces of bile were drawn off. The effect of removing the fluid was remarkable; the patient's expression showed the relief he obtained during the operation, and immediately after the withdrawal of the canula he declared himself free from pain. There was hardly any shock. After the bladder had been emptied, the canula was used as a sound to detect the presence of a stone, if such had been there. However, none could be felt. The stools had for weeks been carefully examined for the presence of stones without result.

The internal administration of phosphate of soda, and the use of blisters, together with hot poultices, were continued. For a week afterwards, everything went on satisfactorily.

At the beginning of the second week, however, the unpleasant symptoms again increased in severity, and the dilated gall-bladder could be seen as before.

April 28th, the tumor was again aspirated, with the assistance of Dr. H. W. Rand, and *four ounces* of bile were removed. The patient again felt much relieved, and did well for a number of days.

May 5th, the third aspiration was made in the presence of Dr. George R. Westbrook. *Four ounces* of bile were withdrawn with the same beneficial result as before. On the following day symptoms of circumscripted peritonitis made their appearance, the temperature rose to $102\frac{1}{4}°$, and the patient complained of much pain and tenderness. Quinine and opium were given, and the threatening symptoms of inflammation disappeared. The tumor again became prominent, and it was decided to aspirate May 12th. Serious illness in the writer's own family prevented him from attending to his professional duties, and Dr. B. F. Westbrook saw the patient a number of times. He says: The pain was very severe; distention of the abdomen marked; tongue heavily coated; bowels constipated. There was a slight rise of temperature. He gave a dose of calomel and jalap, and, after its free operation, administered a stimulating anodyne, viz.: morphia with spirits of chloroform, and the aromatic spirits of ammonia. This gave considerable temporary relief.

Resuming work May 17th, a visit to Schanz was made early in the day. The patient presented an agonizing picture. The gall-bladder was larger than ever before. With the kind assistance of Dr. George R. Westbrook, aspiration was again performed, and *fourteen* ounces of bile were removed at that time. Towards the end of the operation, considerable mucus and blood came away with the bile. The amount of force which had to be used to bring the tenacious fluid through the aspirating needle caused some pain. However, the same good result as obtained on previous days was accomplished. The repeated removal of the bile seemed to have a favorable influence on the constitutional symptoms of our patient; he was improving slowly, and on several occasions expressed his desire to be aspirated just as often as "that lump" came back again. As soon as another enlargement at the border of the liver became visible, it was decided to operate for the fifth time.

May 22d, aspiration was resorted to for the fifth time, Dr. G. R. Westbrook assisting again; the fluid was very thick and the flow was scanty. Only *three ounces and a half* of

bile and mucus mixed with blood were withdrawn; the aspiration was more painful than ever before. The patient felt very well after the operation, and this time the pear-shaped tumor did not return. The fever subsided; the tongue cleaned off; the appetite returned, and though the integument remained yellow for a long time, in fact, it has a yellowish tint at this day, the patient continued to improve, and was discharged June 23d.

Five times has the gall bladder been aspirated; *thirty four ounces and a half* of bile have been removed within one month. At every operation the patient felt much relieved, and since the first withdrawal of bile the constitutional symptoms diminished in severity. At no time did the operation itself place our patient in danger, and generally speaking there was no pain attached to it.

Affections of the Eye Caused by Masturbation.—(By M. Landesberg, M. D.)—The relation of masturbation to diseases of the eye has scarcely attracted the attention of the profession. In the best hand-books of ophthalmology there is no reference to this subject, and in the ophthalmic literature, as far as my knowledge goes, this fact is mentioned but twice only. Dieu (see Nagel's *Jahresberichte der Ophthalmologie*, 1872, p. 372) records the case of a boy of five years in whom amblyopia developed in consequence of masturbation. After the removal of the existing congenital phimosis, which was the exciting cause of the self-pollution, the latter was given up, and vision gradually improved to normal condition. Fœrster (see *Handbuch der Gesammten Augenheilkunde*, von Græfe and Sæmich, V. vii., part V., p. 102) has witnessed instances of intractable chronic catarrh of the eye in patients of from twelve to twenty years, in whom onanism was ascertained to be the only cause of the affection. For my part, I have reason to assume that chronic inflammations of the eye, resulting from masturbation, are not of such rare occurrence as we might be led to infer from the scarcity of the published material on this subject. I remember having met in my practice with many cases of obstinate catarrhal affections of the eye which I had to give up in despair after a protracted course of unavailing treatment, or the patients left me in order to seek better advice. At the time, I was at a loss to account for the intractableness of such cases. Catarrhal affections of the eye generally give a good prognosis, and are easily cured if properly attended to. I had to yield to the evidence that there are some forms of affection

of the conjunctiva in which the treatment fails to bring about the usual beneficial effect. These forms I generally met with in children of either sex, but occasionally, also, in adults. When I afterward learned the intimate relation that exists between some morbid processes of the eye and masturbation, there was no doubt left to me about the nature of all those intractable cases which have been so mortifying to the self-confidence of the physician. This opinion was corroborated by the many other indications of self-pollution which I had observed in these patients, and the pathognomonic symptoms of which I utterly disregarded for want of the proper knowledge of this peculiar coincidence.

The first case that gave me the key to the problem, was a merchant, aged thirty-three years, who came to me suffering from chronic catarrh in both eyes. He had been for nine months under the care of a prominent occulist, who had tried every available remedy without any result. There were no anomalies of refraction or accommodation. Both eyes showed only the symptoms of chronic catarrh with slight blepharitis. The affection had lasted about a year. No reasonable cause of the morbid process could be elicited. There was no inflammation of the other mucous membranes. General health was good. The patient was in good circumstances, and temperate in his habit of drinking and smoking. He was very anxious to get rid of his trouble, and was willing to undergo any treatment for this purpose. I must say I was not a little astonished at the failure of the previous treatment, the traces of which (slight argyria) were seen on both eyes. I made a good prognosis, and promised a perfect cure.

In the course of the treatment, I was struck by the observation that the improvement I succeeded in bringing about in the condition of the eyes did not remain steady, but was interrupted by frequent exacerbations of the morbid process For a long time I was baffled in all my efforts to find any plausible explanation of this strange incident. One day, when my patient came to me with a renewed relapse, it occurred to me that the pimples he had on his face were much more inflamed and more numerous than on the preceding days. On further observation, I ascertained, beyond any doubt, that the increase of the inflammation and number of the pimples always coincided with the deterioration of the morbid process of the eye. The connection of pimples of the face with masturbation, I had frequent occasion to establish in either sex. I was roused to the suspicion whether the anomalous affection of the conjunctiva might not depend

altogether upon masturbation. I inquired of the patient concerning his habits in regard to the other sex. He told me that for the last eighteen months from the time he had incurred a gonorrhœa, he has discontinued all sexual intercourse with women. On further inquiry he confessed that from that time he has been masturbating about two or three times a week. The pimples of his face developed consequently. He has, also, observed that after masturbation, the condition of his face and of his eyes becomes worse. This coincidence impressed his mind so strongly, that he had spoken with his family physician about it, but the latter had derided any possibility of such a relation. I imparted to him my conviction that onanism has been in his case the only cause of his eye affection, and that no cure could be effected unless the habit was totally abandoned. The patient being of a resolute nature, at once discontinued the practice, and had the satisfaction of seeing his eyes gradually improve, without any further treatment whatever. In the course of a month, all traces of the inflammation vanished, and the face became smooth and fair.

From this occurrence I made a point to inquire in every instance of intractable catarrh of the eye, after this possible error of youth. I learned from experience that it is very difficult to find out the truth in this matter in the male sex, but that it is almost impossible to ascertain it in the female one.—*Southern Medical Record*, June, 1881.

Some Uses for Belladonna.—Dr. Henry Colley March, in paper entitled "some new uses of some old remedies," read before the Manchester (England) Medical Society (*Medical Times and Gazette*, March 19, 1881), speaks as follows of the use of belladonna as a stimulant to respiration, particularly in cases of bronchitis in children: "Now, it seems to be precisely a stimulant to the respiratory centres that we need. The minute tubes fill up with a thin froth; the mucous membrane seems insensible to its presence; the child has not learned to cough: nervous symptoms threaten, and perhaps convulsions supervene. In such cases belladonna is a trusty remedy. To a six-months infant give one minim of the tincture every hour. Presently, if necessary, very slightly increase this quantity: but, as soon as the faintest improvement is manifest, reduce the dose lower and lower. The secretion into the tubes will be lessened, the cough will grow more frequent, the head symptoms will subside. Some practitioners always give a patient as much of a drug as he will

bear, short of his being poisoned. Surely the scientific plan is to administer as little as will produce the desired effect. The therapeutic action of a medicine, such as belladonna, is not the same as its physiological action, though both are expended on the same organs and on the same tissues. The dose, therefore, should be lowered before the production, or, at least, at the first sign of any special physiological effect. In the present case, the object is to stimulate a nervous centre. But over-stimulation ends either in spasm or in paralysis. We give, for instance, digitalis to slow the heart's action.

If the dose is increased, the sedation is augmented. But presently a point is reached when, all at once, the cardiac beats become tumultuously rapid. The inhibitory fibres have been over-stimulated, and suddenly they are paralyzed. If, instead of this, the dose of digitalis be gradually lessened as soon as it has produced the desired sedative or tonic action, this may often be kept up with a surprisingly small quantity of the medicament.

As regards tincture of belladonna in capillary bronchitis, there can be no objection to combine it with small quantities of ipecac wine—to give them, say in equal parts. Moreover, in chest affections, as in some others, it is often advantageous to administer ammonia, not exactly because it is a stimulant, but because it prevents hæmic stasis. There is a prevalent notion that diaphoresis is necessary in cases of high temperature or dry skin. Of course, when the skin is bathed in moisture, the evaporation that goes on in a sufficiently dry atmosphere considerably reduces temperature; and it is certainly true that perspiration is excrementitious, for this reason, among others, that it contains urea. So that diaphoresis is of service when a patient is suffering from a cold or from rheumatic pains, the result of checked perspiration. But we must all have seen cases of fever—typhoid, scarlet, and even rheumatic fever—that got easily well without any sweating at all, and indeed, that often seemed to do better than others. Diaphoresis, however admirable in some respects, is an exhausting process, and is not even a cooling one if evaporation be hindered by abundant clothing. Is it not pitiful to see a child burning in the fever of measles or bronchitis, lying under a mountain of blankets, swathed in flannel, sandwiched in poultices, placed within range of a red-hot fire, and swallowing diaphoretics?"

Tacke (*Berliner Klinische Wochenschrift*, 1881, No. 6, quoted in London *Medical Record*, April, 1881), having injected

sulphate of atropia subcutaneously for eczema in a female patient (1-200 grain twice daily for two days), noticed that the menses, which had been very profuse, became moderate and remained so. The same result he has seen followed five times in two other patients, and in a case of hæmorrhage from the lungs, the hæmorrhage twice ceased immediately on the injection. He holds that as a remedy for visceral hæmorrhage it is preferable to extract of ergot: (1) on account of its certainty, and (2) because in the strength used by him (about 2-5 grain to an ounce of distilled water), it does not cause the inflammation which almost invariably follows the subcutaneous injection of extract of ergot.

In the *Norsk Nagazin for Legevidenskaben*, III x, (quoted in London *Medical Record*, May, 1881,) Dr. C. J. Ellefsen relates the case of a man, forty-eight years old, who had previously been healthy, but for seven days had had no alvine evacuation and for the last two days had had feculent vomiting. The abdomen was distended and extremely tender; the extremities were cold; the pulse was frequent and very weak; no fæces could be found in the rectum. Various laxatives and enemata had been used without effect. He was ordered four centigrammes (about 0.6 grain) of extract of belladonna every hour. After he had taken five doses the vomiting ceased; and after five doses more he had a copious evacuation, and rapidly recovered without any symptoms of belladonna poisoning.

In a summary of one of M. Jules Simon's lectures on infantile therapeutics, M. Caradce (*Tribune Medicale*, March 13, 1881,) remarks that children bear belladonna as well as adults, that M. Simon has given as much as 120 drops of the tincture to a girl thirteen years old, without harm, and that he usually carries the action of the drug so far as to produce incipient toxic effects—flushing of the face, dilatation of the pupils, and irritability of temper; but in divided doses, enlarged progressively.

M. Anger (quoted in *Union Medicale*, April 14, 1881,) applies compresses wet with solution of sulphate of atropia (1-1,000) to calm the pains of cancer. They should be renewed every three or four hours. They give marked relief without producing general symptoms.

M. Gueneau de Mussy (*Ibid.* January 23, 1881,) recommends a pill of one centigramme (1-6 grain) of extract of belladonna, just before meals, for the vomiting of phthisical patients.—*N. Y. Med. Jour.*—*Arkansaw Doctor*, Aug., 1881.

Book Notices, &c.

The Metric System in Medicine. By OSCAR OLDBERG, Phar. D., Medical Purveyor U. S. Marine Hospital Service; Professor of Materia Medica, National College of Pharmacy, Washington, D. C., etc. Philadelphia: Presley Blakiston. 1881. 12mo. Pp. 182. Cloth. Price, $1.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

This book contains "an account of the metric system of weights and measures, Americanized and simplified, a comprehensive dose table, and 300 practical illustrations of metric prescription writing, selected from recipes in actual use in hospital and out-door practice." The two chief objects, it seems, of the author are, first, to advocate the greater value of the metric system over that now in common use, and thus to popularize that system; and, secondly, to present the pharmacist and physician with a large number of carefully selected formulæ. We have so often expressed our approval of the metric system that it is unnecessary to reproduce here any of the arguments which lead us to recommend it. Prof. Oldberg, in his book, says enough to convince the student of the advantages that are, in a near future, to be derived from its general adoption. Doctors ought to have this work, and pharmacists cannot afford to be without it.

Treatise on Diseases of the Nervous System. By WILLIAM A. HAMMOND, M. D., Professor of Diseases of the Mind and Nervous System in the Medical Department of the University of the City of New York, etc. With 112 Illustrations. Seventh Edition. Rewritten, Enlarged and Improved. New York: D. Appleton & Co. 1881. 8vo. Pp. 929. (From Publishers.)

This "treatise" is so well appreciated by the profession at large that it would be sufficient notice simply to announce the publication of the present, seventh edition, to secure for it a ready sale. As compared with former editions, it is a great improvement, because the range of subjects discussed is much greater. Although the lengthy chapter on insanity, which appeared in former editions, has been eliminated from this edition (because the author will soon publish a special work on this subject), the edition now presented has more pages of matter. We do not see how any physician who expects to keep himself prepared for general practice can do without this book—both for study and frequent reference. As a text-book for college students in institutions where there is a chair on nervous disease, we do not know of its equal.

Treatise on Bright's Disease and Diabetes, with Especial Reference to Pathology and Therapeutics. By JAMES TYSON, A. M., M. D., Professor of General Pathology and Morbid Anatomy in University of Pennsylvania, etc. With Illustrations, including a Section on *Retinitis in Bright's Disease.* By WM. F. NORRIS, A. M., M. D , Clinical Professor of Ophthalmology in the University of Pennsylvania. Philadelphia: Presley Blakiston. 1881. 8vo. Pp. 312. Cloth. Price, $3.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is a valuable book to practitioners. It collects the important discoveries and suggestions of other authors and adds them to the many which have been made by Dr. Tyson himself. In regard to therapeutics, we find here notices of some of the very latest drugs recommended; so that the book is also abreast with the times. Dr. Norris' contribution on retinitis occupies only eight pages; but in his chapter he gives a good description of the complication. Dr. Tyson's work is a systematic one and will have a permanent record as a standard.

Applied Anatomy of the Nervous System. By AMBROSE L. RANNEY, A. M., M. D., Adjunct Professor of Anatomy in Medical Department of University of the City of New York, etc. With Numerous Illustrations. New York: D. Appleton & Co. 1881. 8vo. Pp. 500. (From Publishers.)

This work is a study of the human nervous system "from a standpoint of its general interest and practical utility, designed for use as a text book and a work of reference." While it is fuller of anatomical detail than any monograph on the nervous system that we have seen, it is, at the same time, made very readable by the amount of practical information regarding the functions and diseases of the several nervous structures of which the book treats. It serves as an excellent companion for works on nervous diseases; and Professors of Anatomy in schools and colleges cannot afford to be without it. We recommend the book to practitioners and students as well. It is all that its title claims for it.

Photographic Illustrations of Cutaneous Syphilis. By GEORGE HENRY FOX, A. M., M. D., Clinical Lecturer on Diseases of the Skin, College of Physicians and Surgeons, New York, etc. Forty eight Plates from Life, Colored by Hand. New York: E. B. Treat. Royal quarto. Price, $2 a number. (From Publisher.)

We have the pleasure of acknowledging the receipt of numbers 7, 8 and 9 of this excellent work, which is to be

complete in twelve numbers. Each number contains eight pages of text and four plates which are gotten up in the best style of the art. These "Photographic Illustrations" have the highest possible commendation of the leading dermatologists of the day, as well as of the medical press all over the country. They will remain standard. Unlike most other medical publications, these "Illustrations" will be of the same value a hundred years hence that they are now. There can be no improvement in their accuracy of representation.

Practical Treatise on Impotence, Sterility and Allied Disorders of the Male Sexual Organs. By SAMUEL W. GROSS, A. M., M. D., Lecturer on Venereal and Genito-Urinary Diseases in Jefferson Medical College of Philadelphia, etc. With Sixteen Illustrations. Philadelphia: Henry C. Lea's Son & Co. 1881. 8vo. Pp. 174. (For sale by Messrs. West, Johnston & Co., Richmond.)

This book treats of subjects regarding which many patients privately consult their physicians; and too often we hear of ridiculous advice given the afflicted. Such advice must result from want of information on the part of the adviser. The usual text-books are entirely too reticent on such subjects. Dr. Gross, however, here furnishes us with a volume that contains such practical instructions regarding the recognition and treatment of male sexual disorders that, if every practitioner had the book, it would be unnecessary for the works on practice or surgery to notice them. We recommend the "Treatise" to every physician. It does not treat of venereal diseases, as such.

What Every Mother Ought to Know. By EDWARD ELLIS, M. D., Late Senior Physician to the Victoria Hospital for Sick Children, etc. Philadelphia: Presley Blakiston. 1881. 16vo. Pp. 132. Cloth. Price, 75 cents. (For sale by Messrs. West, Johnston & Co., Richmond.)

This little work contains a good deal of true value, and many facts which should be known in every household. It is guarded in its recommendations, and properly insists on having the advice of the family physician in cases of possible doubt, etc. It is a book which, in short, tells the mother when to send for the doctor. If we could induce heads of families to study such books more, doctors, on the one hand, would be saved many a useless "call," while, on the other hand, parents would many a time be saved the mortification of not having sent for the physician in time. For ready reference, this book needs an index.

System of Surgery, Theoretical and Practical in Treatises by Various Authors. Edited by T. HOLMES, M. A. Cantab., Surgeon and Lecturer on Surgery at St. George's Hospital, etc. First American, from Second English Edition, Thoroughly Revised and Much Enlarged, by JOHN H. PACKARD, A. M., M. D., Surgeon to the Episcopal and St. Joseph's Hospitals, Philadelphia, Assisted by a Large Corps of the Most Eminent American Surgeons. In Three Volumes, with Many Illustrations. Vol. I. Philadelphia: Henry C. Lea's Son & Co. 1881. 8vo. Pp. 1007. Half Russia. (From Publishers.)

We welcome this invaluable surgical work, which is an improvement on the English Edition in that it is Americanized. Every word of the English text is here reproduced, and copious additions made by the Corps of Revisers, which are always enclosed in [ ]. The second and third volumes are being rapidly pushed through the press.

Volume I, now before us, treats of surgical pathology—including inflammation, hectic and traumatic fever and the treatment of cases after operation, collapse, scrofula, syphilis, tumors and cancer. Part II takes up morbid processes—including abscess, sinus and fistula, gangrene and ulcers. Part III is devoted to injuries in general—contusions, wounds, burns and scalds, animal poisons, wounds of vessels, fractures and dislocations. Part IV relates to the complications of injuries—erysipelas, pyæmia, tetanus, delirium tremens and hysteria. Part V—which concludes this volume—is taken up with a consideration of injuries of regions. The American revisers of this first volume are Drs. J. H. C. Simes, Wm. Hunt, John B. Roberts, J. N. Hyde, Morris Longstreth, P. S. Connor, Thomas G. Morton, Samuel Ashhurst, Lewis A. Stimson, John H. Packard, J. S. Jewell, Roberts Bartholow, John A. Lidell, Chas. T. Hunter, John T. Hodgen and Edward T. Caswell—names of well known surgeons and authors, which give surety of a truly practical and authoritative book.

The volume is handsomely issued in double columns, and profusely illustrated. We could not speak too highly of this book, even if our space permitted us to point out some of its many excellences. Every surgeon should have this *System of Surgery*.

The Mother's Guide in the Management and Feeding of Infants. By JOHN M. KEATING, M. D., Lecturer on Diseases of Children at University of Pennsylvania, etc. Philadelphia: Henry C. Lea's Son & Co. 1881. 16mo. Pp. 118. (From Publishers.)

Such books as this one represents would be very useful if

the special class of persons for whom they are particularly designed would read them—mothers or those soon to be mothers, and nurses. Dr. Keating's efforts to popularize the subject of which he treats are commendable, and the instructions he gives in this volume are altogether reliable. Practitioners would do well to induce their female patients to carefully read and remember the teachings contained in the book. Such a course would relieve the fears of many an anxious mother, and at the same time save the doctor the annoyance of—to him—many a trifling experience.

A New Form of Nervous Disease, together with an Essay on Erythroxylon Coca. By W. S. SEARLE, A. M., M. D., Fellow Medico-Chirurgical Society of New York, etc. New York: Fords, Howard & Hulbert. 1881. 12mo. Pp. 138. (From Publishers.)

We have a friendly appreciation of the intended good to medical science that Dr. Searle sought to accomplish in the publication of this *brochure*, which, he states, appeared "in a New York journal during the years 1879–80." We do not recall the papers as then published; but we see nothing in them, as at present recorded, to indicate that they are anything more than cases of cerebral congestion (or hyperæmia as Hammond calls it). If we had kept notes of the cases (as doctors who have the opportunity should always do), we could add certainly two cases, which so closely correspond to the records of Dr. Searle that we would have thought the attacks "a new form of nervous disease," had we not recognized and treated them as cases of cerebral hyperæmia. One was the case of a young gentleman who was studying law, and came to consult us from a town of North Carolina. He had been guilty of no excesses except that of over-study in his law books—setting up from 7 A. M. until one or two A. M., with light meals and anxious thought all the time. The other was a lady of this city, whose husband, after about a month's marriage, was suddenly killed by a railroad train. She suffered the occipital pain and the "shock" which the Doctor so well describes, for at least three months afterwards.

As we do not regard the attacks of Dr. Searle's patients as anything more than cases of ordinary "cerebral hyperæmia," we will give him "the benefit of the doubt," and will repeat for him his table of "differential diagnosis" between "epilepsy and epyleptoid" and the "new disease," and will then leave it to our readers to see if, in the main, there is not in the record an almost perfect history of "cerebral hyperæmia."

"Epilepsy and Epyleptoid."	"New Disease."
1. Sudden and temporary loss of consciousness the most common symptom. If protracted, always stertorous breathing.	1. Consciousness seldom lost; usually quickened. When lost, no stentorous breathing.
2. Sudden and temporary spasm, with or without loss of consciousness.	2. Seldom, if ever, spasm of any kind.
3. Intermediate symptoms few and temporary. When present, mainly intellectual disturbances.	3. Intermediate symptoms constant and severe, with no intellectual disturbances.
4. Vertigo unusual and slight.	4. Vertigo very common and violent.
5. No prodromata.	5. Prodromæ frequent and like intermediary symptoms. Same symptoms often occur without shock.
6. Influence of heredity clearly seen.	6. Hereditary influence very rarely seen.
7. Frequent development of *grand mal.*	7. No development of *grand mal.*
8. Loss of memory.	8. No loss of memory.

Pamphlets, Reprints, etc., Received, for which we have no room for further notice; but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Uterine Dilatation with a New Instrument. By H. P. C. Wilson, M. D., Baltimore, Md. Reprint from *Amer. Jour. Obstet. and Diseases of Women and Children*, July, 1881. 8vo. Pp. 9. (Illustrated with a cut of the instrument. An excellent paper.)

Case of Poisoning by Oil of Chenopodium. By Thomas R. Brown, M. D., Baltimore, Md. Reprint from *Md. Med. Jour.*, Nov., 1878. 8vo. Pp. 9. (A rare case, well reported.)

Editorial.

The President's Condition is a subject of such deep interest to every American that we are not surprised at the eagerness so generally manifested by the medical press to speculate as to the result. We have seen many ridiculous descriptions and surmises on the subject put in print by doctors who, in this instance, manifest no greater intelligence as to the nature of the wound than the laity. By such a course, the profession lays itself liable to have further odious epithets and taunts thrown at it. Not one of the six distinguished medical men now in attendance upon the President has yet been able to trace the track of the ball, or to locate its present position with satisfactory definiteness to warrant them in announcing an opinion—although these gentlemen are the only surgeons who have ever had an opportunity of examining the wound. In our profound sympathy for the

President in his sufferings and for the medical attendants in their anxiety as to the result, and not being in position to render any assistance, we have deemed it the most prudent course not to offer any criticisms upon the plan of treatment being pursued. Some of the palpable errors of diagnosis and treatment during the first few days after the wounding were such that many of us, under the terrible excitement of the hour, would probably have committed.

As to the addition of Drs. Frank H. Hamilton, of New York, and D. Hayes Agnew, of Philadelphia, to the professional consultation, every one must rejoice because of their known ability and faithfulness. Whatever may be the result now, even if fatal, we would feel resigned, as we would live in the belief that every thing had been done for the restoration of the President that human skill and art could accomplish.

In regard to the speculations which have been made since July 2nd as to the nature of the President's wound and the prognosis, we will reproduce in full the *Graphic's* account of them, which we trust will prove satisfactory to out readers as an expression of our views on the subject:

"The ball has not been found. A 'distinguished physician' says that it is probably inside of the President. The President is cheerful and determined to recover. A 'prominent physician' says that he will certainly recover. Another says he certainly will not recover. The course of the ball is unknown. But it perforated the liver. There have to-day been dark forebodings concerning the President. He is not so well. It is asserted that he has really been in great danger during the last three days. Secretary Blaine's face wears an anxious look. The ball did not go through the liver, it grazed it, however. The strongest hopes are entertained of the President's recovery. The ball has been located. It lies peacefully near the right iliac region on the cardium. Another incision was made in the President to-day. More tubes to facilitate the flow of pus have been inserted. The President is cheerful. All are now sanguine of his speedy recovery. Grave apprehensions are entertained concerning the President. He is too weak to move a limb. The President nearly sat up to-day and ate the wing of a chicken. Splinters are coming out of the wound. Facts concerning the President's real condition have been kept back. The public have been deluded with false hopes. A consultation of distinguished physicians has been held this evening. It was resolved again to cut into the President. The surgeons'

knives have been sent to a distinguished cutler's to be sharpened. A 'distinguished physician' of Washington, who has not been called upon at all to survey the case, gives it as his opinion that the treatment of the President has from the first been radically wrong. He believes the ball not to have touched the liver at all, but lies in the fleshy integuments behind the abdominal wall and four inches from the excoriosis of the duodenum. The President bore another operation to-day cheerfully. The ball has been located again by an electric apparatus. It lies behind the excordium of the camera. It seems moving around in the President at a lively rate. Some alarm is felt to-day. Another operation is in contemplation. The physicians held another consultation last evening. Secretary Blaine's face wears an anxious look. More pipes have been inserted to facilitate the drainage of pus. It is thought that the ball, wherever it is, is now enclosing itself in a cyst. Seven newspaper reporters intend taking out diplomas and enter on medical practice as soon as President Garfield recovers, having fully qualified themselves by their study of this and parallel cases, as well as by daily interviews with the most prominent of the physicians in charge of the ruler of the nation. There is no further doubt concerning the President's speedy recovery. A new location has been found for the ball. It went near but never touched the liver. The President's convalescence must be very slow. He is a very sick man. A 'distinguished physician' has found the ball. It lies under a blue spot on the abdomen. It never went near the liver. Another operation on the President is contemplated if room can be found to make a fresh incision. A new probe has been invented by a New England man to explore the course of the wound and inside of the President. It is three feet long and works with a crank. The President and Secretary Blaine are delighted with it. The new course inside the President which has been surveyed and staked out for the ball meets the unqualified approval of the Cabinet and a majority of the 'most distinguished physicians' in charge. Secretary Blaine's face no longer wears an anxious look. Room has been found on the President's body for a new incision. It will be made to-day. Much anxiety prevails. The President bore the operation cheerfully. He seems now almost to like being cut up and into. Dr. —— has made a new diagram of the course of the ball. He thinks it attempted a northwest passage to the lumbar region, but being diverted from its course by the eleventh rib went due south and settled in the ex-fossilary

bilarious. Four bales of boneset, catnip, hoarhound and liverwort sent by elderly New England ladies for the President's use have to-day been removed from the White House. A new probe was sent in to-day, the invention of a Western man. It is worked by horse power, and the inventor claims that it will locate lead or any other mineral in the human form divine, and can also be used as a divining rod to point out hidden treasure. A prominent physician thinks he has found room on the President's body for another operation. Hope now pervades every countenance. It is confidently expected that the distinguished patient will survive all the operations of the 'distinguished physicians.'"

Celerina in Mental Depression and the Opium Habit.—Dr. Charles Zoller, of Litchfield, Indiana, says he has used Celerina—a preparation made by the celebrated chemist of St. Louis, J. C. Richardson, of celery, coca and viburnum—in two cases caused by sexual exhaustion, and has found the results "very satisfactory." He gives the same favorable report in two cases of the "opium habit."

Typographical.—On page 359 of August number, 1881, the name of the contributor of the letter on "Nasal Catarrh" is Dr. Riopel—not Rirpel. Then again, in this letter, as published last month, the printers put it "persons who speak through the nose have this catarrh more or less extensive." Instead of "catarrh," it should have been *curtain*.

Tri-State Medical Society.—The seventh annual meeting of the Indiana, Illinois and Kentucky Tri-State Medical Society, will be held in the city of St. Louis, Mo., Tuesday, Wednesday and Thursday, October 25, 26 and 27, 1881. The profession of the "Mississippi Valley" are cordially invited to attend.

[We gladly publish this notice; but why not have invited friends elsewhere than in the "Mississippi Valley." We don't live in the "Mississippi Valley," and hence we are not invited. Sorry for it, but then we could not have gone had we been invited, as the Medical Society of Virginia will meet so soon at Old Point Comfort, Va., as we presume at the present writing.]

Wanted—The May number, 1880, of the *Virginia Medical Monthly*, for which a fair price will be paid if delivered in good condition to the editor.

Dr. George Purviance, Surgeon Marine Hospital Service, has been ordered to proceed to Richmond, Va., as Inspector, and as Chairman of Board of Survey, to examine applicants for admission to the Revenue Marine Service.

Wolf-Trap Water.—For several years past, this water, from Wolf-Trap Springs on the line of the Richmond and Danville Railroad, has been growing in professional favor as a diuretic, anti-dyspeptic and aperient. But now that Messrs. Purcell, Ladd & Co., of this city, have taken the agency for it, it must become much more generally known to the profession. Any number of remarkable cures by this water that are attested by worthy and prominent physicians can be reported. Its virtues seem to have been known for a long time to the citizens in the neighborhood of the Springs.

Dr. T. Gaillard Thomas has resigned his Professorship of Obstetrics in the College of Physicians and Surgeons of New York, and has been elected Emeritus Professor of that Institution.

Paul F. Munde has been elected Professor of Obstetrics in the College of Physicians and Surgeons of New York, to fill the vacancy occasioned by Dr. Thomas' resignation. A better selection could not possibly have been made.

Obituary Record.

Dr. Joseph C. Hughes, of Keokuk, Iowa, died at his home on August 11th, 1881. He was born in Washington county, Pa., April 1, 1821. He was connected with the College of Physicians and Surgeons of Keokuk up to the time of his death, since 1850. He was twice President of the Iowa State Medical Society. During the war he was Surgeon-General of the Iowa forces. In 1866 he was elected one of the Vice-Presidents of the American Medical Association. At the meeting of the Association in Richmond, May, 1881, he was elected Chairman of the Section on Surgery for 1882; and at various times in his life he has held many other offices of high preferment. He has, in addition, been a contributor of many valuable articles to medical journals.

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Original Communications.

ART. I.—**Remittent Fever.*** By OTIS F. MANSON, M. D.

SYNONYMES—*Bilious Remittent Fever, Bilious Fever, etc.*—Remittent fever, from its serious tendency, extensive prevalence, frequent recurrence and complex nature, possesses, beyond all other diseases, a peculiar and absorbing interest to the Southern physician, and although seen sporadically in a mild form in more elevated latitudes, it still may be emphatically termed the disease of Southern climes. It is with this malady that the young practitioner there will be probably first called upon to combat. It is from ignorance of its

* In cheerful compliance with the request of many of our subscribers, and with the permission of the author, Otis F. Manson, M. D., of Richmond, Professor of Physiology and Pathology in the Medical College of Virginia, etc., we republish this article, contributed to the *Virginia Medical and Surgical Journal* of January, 1855. We do this the more readily as the description of the phenomena of remittent fever, as it occurs in puerperal women, which forms a part of this essay, has been of late the subject of extensive discussion, and possesses important claims upon the notice of the profession. To the new generation of physicians that has arisen, this paper will be as novel as it certainly is as valuable at the present moment as it was at the time it first appeared. We congratulate the writer that the great value of his contributions to practical medicine has been at last, though too tardily recognized by his brethren.—ED.

nature and treatment that many an aspirant has failed to fulfil the prophecies of his young ambition; and veterans, victorious in many conflicts with disease, undmindful of the progress of therapeutics, and disdaining the teachings of a new philosophy, have lost their well-earned laurels.

It is in this disease and its archetypes, above all others, that the efficacy and certainty of remedial agents are most evidently and conspicuously displayed. It is in view of our brilliant and decisive triumphs in its treatment that hydra-headed charlatanry recoils dismayed before the genius of orthodox science; that the skeptic is compelled to admit that "his doubts are traitors," and the loftiest intellects and meanest minds are alike impressed with the might and majesty of our divine art. "Homines ad Deos nulla re proprius accedunt, quam salutem hominibus dando."

Impressed, therefore, as he soon must become, with the vast importance of an intimate acquaintance with this affection, the young physician will learn with astonishment, that there cannot be found in any standard work of our country a correct description of its characteristic features as it now presents itself, or safe and reliable rules for its treatment. It is true that, scattered through the pages of journals, many invaluable articles are to be found, but they are not generally accessible, and if they were, it would be a difficult task for a novice to separate the true from the false, and to form a definite and correct opinion from their scattered and discordant materials. It is deeply to be regretted that this deficiency in our literature exists, and it is from a desire to contribute something to supply it that this article is penned.

General Character—*Mild Remittent Fever, Synonymes, Chill and Fever, Congestive Chills, etc.—Prodromic Stage.*—The onset of this fever is generally *sudden*, and in cases where premonitory symptoms are present, they are usually of brief duration. The patient has an irrepressible foreboding of evil, is languid, inclined to be drowsy and disinclined to exertion. He experiences fugitive pains in his head, neck, loins and limbs, and sensations of chilliness are felt running along the spine, and from thence irradiating to the extremities, succeeded by flushes of heat. The appetite fails or is

capricious; the tongue is slightly covered with a white fur; the bowels are generally costive, occasionally alternating with diarrhœa; the urine is copious and limpid, and there is frequent micturition, attended with a sensation of heat in the urethra.

The Invasion.—This is almost invariably ushered in with a *chill*, the sensation of cold varying from the production of an evanescent tremor, to a distinct and prolonged rigor, *which may occur at any hour of the day or night.* This INITIAL *chill* is commonly felt sensibly by the patient, however, and the reduced temperature of the extremities especially, is evident to the *touch* of the attendant. The patient is restless, sometimes amounting to extreme jactitation. He is thirsty, and complains of a sensation of internal heat; his breathing is accelerated, unequal, and interrupted with sighs; the pulse is frequent, small, and sometimes irregular; pain in some region of the head is usually present, as well as the spine, the latter sometimes very distressing, and constituting the principal suffering of the patient. Nausea and vomiting are occasional symptoms, but according to my observation are not so generally present as it is usually stated. This stage is commonly of short duration and is soon followed by decided reaction.

The Exacerbation.—The skin now becomes hot and dry, the face flushed, and a roseate glow is perceptible over the general surface. The sclerotica is injected and the globe of the eye prominent. The cerebro-spinal pains increase in intensity and assume a throbbing character. The pulse acquires volume, force and regularity, but is almost invariably *compressible.* The respiration becomes slower, more uniform and less laborious. The tongue becomes dryer and more coated, and the secretions of the mouth viscid and tenacious; the thirst continues, but is not usually so urgent as in the chill. These symptoms increase in intensity until they amount to an acme of exquisite suffering, and then gradually decline.

The Remission.—Late in the afternoon, usually between the hours of 5 and 8 in *very mild* cases, but postponed to some period between midnight and sunrise, in more *severe*

attacks, the fever and its concomitants sensibly begin to yield, and the patient sinks exhausted with suffering into a slumber of variable duration, from which he awakes more or less relieved. The skin becomes cooler and relaxed, the tongue moist; the painful sensations abate, and often entirely vanish; the respiration becomes free, and the pulse diminished in frequency and force. This respite from suffering is usually, however, of short duration, being followed by the recurrence of the stage of congestion or chill. As the *succeeding chills*, however, differ in some important features from the initial chill, we devote to them an especial notice.

The Pathognomic Chill of Remittent Fever.—This, according to my observation, *never* occurs between the hours of 9 P. M. and the rising of the sun of the following day, but usually between the hours of 8 A. M. and 12 M., and occasionally between 6 and 8 P. M.

At or near these periods, the watchful attendant will perceive a *sensible diminution of temperature* of the extreme parts, viz., the *nose*, *toes* and *fingers*, or the *whole hands* and *feet* will be found *below* the *natural standard*, being *cool* and *damp*, *the rest of the surface retaining its febrile heat*, more evident in the *cerebro-spinal* and *epigastric* regions. In this condition, the patient *rarely* complains of any sensation of cold, but *often* of heat, desires to be fanned, the clothing to be removed, and entreats for cold drinks. The pulse is frequent, but usually regular; the bowels torpid, but easily excited into action. Nausea and vomiting are sometimes present, the fluids ejected from the stomach being usually of a bilious character. The respiration is not much affected, but the patient yawns and gapes, utters deep sighs, alternating with forcible voluntary expirations. The duration of this stage is usually brief, rarely lasting more than an hour, and is succeeded by the reaction, which is marked by an extension of the febrile heat over the whole surface, and a repetition of the symptoms of the first exacerbation just described. As the disease advances, the pulse becomes increased in frequency, quickness and tension, but diminished in volume. Evidences of organic irritation, usually referable to the abdominal organs, become

developed. The tongue becomes more coated and acuminated, with a perceptible redness at its extremity and on its edges. More or less tenderness or abdominal pressure will now be felt, with gastric and intestinal irritability, attended in some instances with an *intolerable burning pain* most *intensely* felt during the *chill.* Percussion will generally detect an increase in the size of the spleen, and later the hypertrophy becomes obvious to the eye, particularly when the patient is in a sitting posture. Diarrhœa may now make its appearance, but generally its occurrence is postponed to a more advanced period; but it now may be observed that aperients of the mildest kind are prone to produce intestinal spasm and hypercatharsis, particularly *near the chill period.* The disease now progresses with aggravation of the cerebral and gastro-enteric symptoms, until from the third to the fifteenth day; it usually terminates without the interference of art, in three modes to be described under the following heads: 1st. *In Grave Remittent;* 2d. *In Adynamic Remittent;* 3d. *Intermittent Fever.*

Type.—It will be seen from this sketch of the disease, as it usually appears, that its common type is *Quotidian*, but owing to the fact that in many cases the exacerbations of the alternate days correspond with each other in presenting more violent reaction, and the intermediate paroxysms being milder, the majority of writers have assumed it to be of the tertian or double-tertian type. This, we think, is erroneous; for close observation on the part of the physician will almost invariably detect its quotidian character, as evinced by the diurnal occurrence of the stage of chill or congestion above described. In very few instances have we failed to discover it; indeed, it often happens that the *sensations* of chilliness and *coolness of the extreme parts*, are *more* perceptible when preceding the *mild* exacerbation, than previous to the *more intense reaction* of the alternate paroxysm.

Occasional Symptoms.—*Delirium* is sometimes present in the exacerbation, chiefly observed in children, and adults of a nervo-sanguineous temperament, but it is *usually* mild, of brief duration, declining with the fever, and disappearing entirely before the subsequent chill. *Sometimes*, however,

it is *violent*, *fierce* and *protracted*, forming apparently an alarming and dangerous feature. Even in those cases, however, it almost invariably disappears before the next paroxysm, thereby betraying the periodical nature of the affection. The passive, persistent delirium common to continued fever, is only seen at the termination of protracted cases, when it has assumed the adynamic character.

Coma is occasionally observed. Children and aged persons often manifest it in a partial manner, by a somnolent tendency in the exacerbation. In the latter class of patients it is sometimes complete and protracted. The patient lies on his back, with the eyelids opened, with a dull, fixed vacant stare. The breathing and pulse are not much accelerated, and may be entirely normal. The bowels are quiet, but the patient has copious, frequent and involuntary discharges of urine. He utters no articulate sound, and the function of deglutition seems to be lost. He receives fluids into his mouth, but does not betray any perception of savours; for all kinds are indiscriminately spat out in a perfectly natural manner, save without any reference to the place of deposit. These symptoms all disappear in the remission, and under proper treatment cannot be considered of very grave omen.

Convulsions sometimes occur in hysterical females and children; they are usually of brief duration, and even in the latter class of patients, are rarely a source of danger, in our experience, when they take place in the early part of an attack. Occurring, however, in the latter stages of protracted cases, they may be considered as very fatal symptoms.

Remittent Fever of Puerperal Women.—We desire to call the special attention of the young practitioner to the *peculiar phenomena* presented in *this fever*, when occurring in females soon after *accouchment*. It may be regarded as an etological axiom, that whatever tends to prostrate the nervous, or deplete the vascular systems, renders the organism strongly predisposed to endemic or epidemic influences In puerperal women, both of these conditions unfortunately exist, and it is not therefore, surprising that they should be often attacked with this affection. The patient is generally seized with a

chill, which may be mistaken for the usual rigor after parturition, or that introductory to the febris lactea. This is soon, however, followed by an unusual, intense and prolonged reaction. The secretion of milk, if existing, is arrested, and the lochial discharge is partially or completely suspended. Intense dorsal and abdominal pains are experienced, and the uterus becomes evidently enlarged, rising above the pubis and very tender on pressure. As the exacerbation declines, the suffering abates, and the lochia may partially reappear in the remission, which is usually quite evident. Close observation will soon thereafter detect the *coolness* of the *extreme parts* antecedent to a second paroxysm, which is attended with augmented spinal and abdominal pain and tenderness. Increase of the uterine tumour ensues, the abdomen becomes tympanitic and will not bear the slightest pressure. The tongue becomes red, or red on its edges, and brown or black in its centre. Obstinate vomiting ensues; colliquative diarrhœa sets in, and coma or convulsions close the scene. It is clearly evident from these symptoms, that this complication may be mistaken for the puerperal fever of European authors. As far as the local symptoms and functional disturbances are concerned, the analogy is very evident, with this important distinction, however, that the local symptoms and the lesions of which they are the exponents, are the *consequences and not* the *cause* of the *febrile disturbance.* The paroxysmal character of the case, as shown by the marked remissions and exacerbations of fever, the regular increase and abatement, *pari passu*, of the local symptoms, and the phenomena pertaining to the stage of congestion or chill, will generally enable the observant physician to lift the mask from the features of the case, and to discern its distinctive character. Discomfiture to himself and death to his patient will probably result, if, erring in discrimination, he resorts to the usual antiphlogistic treatment of puerperal fever, whilst on the other hand, by the adoption of the proper means, the disease may be generally arrested. Concerning no disease, perhaps, are more antagonistic views promulgated than in regard to the nature and treatment of puerperal fever. In the opinion of the writer, these discrepancies can only be

explained by the fact that, although the disease as it presents itself to different observers, is similar in its general features, yet, arising in some cases from epidemic influence, and in some instances produced by a specific contagious miasm, it differs widely in its symptoms and causes, and requires as equally different modes of treatment.

Adynamic Remittent.—Remittent fever of a low grade and persistent character, strongly simulating continued fever, may present itself as a *sequel* to neglected or mismanaged cases of the ordinary form of the disease, or may occur *primarily*. Its approach is commonly, however, less abrupt than the usual form, the invasion being often unattended by a decided chill. In other respects the prodromata do not differ essentially from an ordinary attack. The pulse is of moderate frequency, not usually exceeding 100 per minute in adults. The exacerbations and remissions are indistinctly marked, the pulse in many cases varying only 8 or 10 beats in 24 hours. The heat of skin is moderate, and very often attended with some moisture during the greater period of the attack. When the disease is fully formed, the tongue becomes more or less pointed and red at its tip and on its edges, with a brown fur on its dorsum. The patient does not usually experience much acute pain. A dull headache, but not continuous, together with some abdominal uneasiness, are generally present. Diarrhœa sometimes occurs, and although it may be absent, a tendency towards it is manifested by a morbid susceptibility to the action of cathartics; the mildest aperients producing severe tormina, and frequent, copious serous discharges. As the disease advances, the tongue becomes dry, brown and even black, or parting with its coat, it presents a clean, red, shining surface. The abdomen becomes tympanitic, tense, and tender to the lightest touch, or as in some cases, although enlarged, yet it is soft, its walls yielding to the weight of the viscera; the skin being wrinkled, dry and desquamating, and the separate and relaxed muscular fibres imparting a sensation to the hand, as if the cavity was filled with lumbrici. The mind is usually clear in the first stages; as the disease advances, however, the intellect yields. Continuous muttering delirium, colliquative

diarrhœa, and sometimes intestinal hæmorrhage supervene (the blood in the latter instance being fluid, uncoagulable and horribly offensive), under which the patient soon succumbs.

Grave Remittent Fever.—Synonymes, *Congestive Fever*, *Pernicious Fever*, *Algid Fever*.—We now proceed to describe a grade of remittent fever that may be justly ranked with the most fearful and fatal scourges which afflict humanity. In the mild, uncomplicated phase of this affection predescribed, nature seems to have resisted the action of the morbific cause with energy and promptness, but in this the vital power seems overwhelmed and powerless, and unassisted, too often surrenders.

Grave remittent may occur as a primary form of disease, occurring suddenly, without premonition, or as more generally the case in this region,* it commences with the symptoms of mild remittent or intermittent fever, when either from the action of its natural cause, or more frequently from exposure or improper treatment, such as ill-timed depletion or purgation, it suddenly presents the grave and alarming symptoms which characterize it, the most conspicuous of which are a prolonged cold stage, and failure or disappearance of the pulse. The symptoms, however, in other respects often widely vary, and in my opinion may be classed under three heads, viz: Those referable to and arising from a perverted action of different portions of the cerebro-spinal axis, as follows: 1st. Symptoms arising from congestion of the cerebrum. 2dly. Those arising from congestion of the cerebellum, pons varolii and medulla oblongata; and 3dly. Those arising from congestion of the spinal cord. We deem it proper, however, to describe the symptoms usually present in all of these modifications. The phenomena which forcibly arrest the attention of the observer, are those presented by the state of the skin and the pulse. The patient is cold, the features are sharp and shrunken, and the surface shrivelled. In some cases he is merely pale, but in the worst cases the skin is of a dusky, purplish hue. It may be dry, but usually it is damp, or even wet with exhalation, which is sometimes glutinous in its character. It may be deficient in sensibility to such an extent that the common external irritants, such as

* The Roanoke Valley of Virginia and North Carolina.

rubefacients, sinapisms, and blisters, produce no impression. This condition of the skin *may* exist over the *whole* body, but *usually* within my observation, it does not pervade the trunk, being confined to the upper and lower extremities, the nose, cheeks and ears, the rest of the head and the body being of febrile heat. The pulse is very frequent and small, and in some rare instances disappears entirely from the wrist. The respiration is more or less disturbed. The patient complains of a sense of oppression about his chest, he sighs often, suffers from sensations of internal heat, demands cold drinks, desires to be fanned, and strenuously objects to any covering being placed on his clay-cold limbs. The cardiac sounds and impulse are normal, and in some cases more distinct than in health, where the *coldness* of the surface is confined to the *extreme parts*, but when it pervades the whole periphery, the sounds and impulse are indistinct and feeble. The strength of the patient is often remarkable, so that he is able to assist himself, and even to walk about his room for some time. Diarrhœa is sometimes present, but is not a constant symptom. The duration of the cold stage varies very much, but it rarely continues beyond 8 or 10 hours; it however may endure *much* longer.

The Exacerbation.—The reaction may be perfect or partial. The heat gradually returns to the surface and extends to the extremities, the pulse becomes less frequent and more expanded, the breathing becomes disembarrassed; the symptoms common to the milder grade being present in ratio with the development of the febrile action. This stage endures from 10 to 24 hours, and is succeeded by the stage of congestion, which in turn yields to a reaction more or less distinct, or is fatal, the disease having a tendency to terminate on the 3d, 5th and 7th days mortally, or subsiding into the mild form, or in intermittent fever.

Congestion of the Cerebrum.—*The Cold Stage.*—The patient may be suddenly seized with symptoms of inordinate sanguineous determination to the superior portion of the encephlon, but usually there are some premonitions. He complains of pain in the frontal region, of an acute throbbing character. The intellect is confused and wandering, and he

is disposed to sleep, the drowsiness gradually increasing to coma. He seems to be in a profound sleep, but sometimes can be aroused by shaking him forcibly and calling aloud, when he may reply in monosyllables and intelligibly, but instantly sinks into stupor again. He breathes softly, regularly, and but little more frequently than in health. His extremities are cold and of a bluish tint. the coldness extending to the pelvis and axillæ, the trunk and head being of febrile warmth. In some instances the whole surface is cold, but these are rare. The skin is usually dry or but slightly moist, this variety not being usually attended with colliquative sweat. The pulse is frequent and small.

The Exacerbation.—The pulse still indicates evidences of an impeded circulation, and rarely regains its normal volume or force, the breathing becomes more accelerated, the patient grows restless, and gradually regains his faculties. He now complains of cephalic pain, of nausea, and occasionally vomits, and the whole surface becomes warm and even hot. As the exacerbation declines, the patient becomes more comfortable, and himself and friends look forward to a speedy convalescence, *but this is a deceitful calm.* The cold stage recurs with aggravation of the cerebral symptoms, and increased prostration of the general powers. In some cases, however, without assistance the second *cold stage* assumes a *mitigated* character, gradually subsiding into mild remittent, or the intermittent form. When the disease however continues unabated, the *third* paroxysm is prone to prove fatal, but the termination may be postponed to a more advanced period.

Congestion of the Cerebellum, &c.—*The Cold Stage.*—Unlike the variety just described the intellectual functions in this are undisturbed. The patient complains of fixed pain in the occipital region; he is very restless, constantly shifts his position and complains of great difficulty of breathing, and often declares, "he will die for the want of air." He experiences a distressing sense of internal heat and oppression. The respiration is irregular and laborious, the expirations being forcible and prolonged. The skin is cold, of a purple and mottled appearance, bedewed with moisture.

This state of the surface is usually confined to the extremities, the remaining surface being above the natural temperature. The *tongue* is dusky and expanded, and in extreme cases it is *cold*, as well as the *breath*. The bowels are generally sluggish, but the urine is copious and limpid. The patient often arises from his bed, but his *gait* is *tottering* and *unsteady*, and he sometimes falls to the floor suddenly, as if stricken lifeless, but instantly arises again, thereby proving that it is not simply from *debility* that he is unable to retain the erect position, but from a *loss of control* over his *muscular movements*. The pulse is very frequent and small; nausea is not usually present, but the patient makes frequent efforts to vomit, thinking thereby to remove the thoracic oppression. Insensibility of the stomach to the action of medicine is a prominent condition in this stage, which rarely endures more than ten hours.

The Exacerbation.—The reaction gradually ensues, and in proportion to its development, the symptoms belonging to the cold stage disappear. The respiration becomes more regular and free, the pulse slower and expanded, the skin becomes warm and even hot, and the pain in the occipital region mitigated; nausea and vomiting are apt to ensue, and the stomach responds to the action of medicine readily. Without interference, the cold stage again recurs, the second paroxysm often proving fatal.

Spinal Congestion.—*The Cold Stage.*—This is attended with symptoms of a milder character and is of shorter duration than the preceding varieties of the grave form. The spinal pain is confined to the dorsal and lumbar regions, and is *not* of an acute character, save when *pressure* is made upon the *affected region*. Unlike the former varieties, in this the intellect is unaffected and the respiration free.

The diminished temperature is usually confined to the extremities, and rarely extends beyond the knee and elbow; nor is there usually present any superabundance of moisture, the cold surface being dry or merely damp, the remaining surface (always excepting the facial extremes) being above the natural heat. The patient (in this as in the former varieties) is ignorant of the coldness of the extremities but com-

plains of heat; is restless and suffers *violently* from *spasmodic pain in his bowels*, which are usually costive. To such an extent are the *abdominal* pains present, that the *disease* has been *mistaken* for an attack of *colic*. The pulse is not usually much accelerated, but is irregular during the paroxysms of abdominal pain. This stage rarely exceeds one or two hours in duration.

The Exacerbation.—Although the reaction is usually decided, the fever is rarely intense. The skin becomes warm and expanded, and often moist. The pulse, unlike as occurs in the former varieties, now usually becomes *morbidly slow*, and is *characteristic* of this phase of remittent. This condition of the pulse, unless closely observed and counted, is apt to throw the inexperienced off their guard. *I have known physicians of no mean skill, to declare the patient was but slightly ill*, but who nevertheless *expired in the next paroxysm.* More or less tenderness will be found on pressure of the abdomen, chiefly in the umbilical region, but the spasmodic pains are always mitigated, and sometimes entirely disappear in this stage, which is more prolonged than in the other varieties A complete remission late in the night or during the morning hours, often ensues, in which the patient sleeps quietly and presents so few marked indications of disease as to attract but little attention. The cold stage however reappears, attended with more aggravated symptoms. The abdomen becomes enlarged and exquisitely tender, and the agonizing abdominal pains return.

As the disease advances, the abdomen becomes tympanitic. Serous, or as is more often the case, hæmorrhagic discharges ensue, the blood being black, liquid and offensive; the coldness extends over the whole surface, a clammy sweat breaks out, the features become cadaveric, and the patient becomes delirious or sinks into coma and expires. The fatal termination is, however, usually postponed beyond the 7th day.

Diagnosis.—From the foregoing sketches of the various forms, grades and complications of this protean affection, it is evident that the inexperienced observer will often find much difficulty in discerning its true character. The peculiar traits of the disease in puerperal women have been

already pointed out, and the various phenomena incident to the different grades described, which we hope will be of some aid to discrimination in the majority of cases, but as *remittent often simulates continued fever*, we deem it necessary briefly to indicate the distinction.

A well-marked case of either disease would rarely be mistaken by an observer of educated perception, but under the head of adynamic remittent, we have endeavored to depict a form which bears enough resemblance to typhoid fever to be often confounded with it. Like typhoid fever, adynamic remittent may appear at any season of the year. It is rarely attended with much acute suffering, and is protracted in its duration. The resemblance is rendered more striking by the evidences of abdominal lesion in both, the tongue being inclined in either to be red and dry, and diarrhœa and meteorism being symptoms common to both. Here, however, we think the analogy ends. In remittent there is an absence of that peculiar, stupid, vacant expression, deafness, eruption and the irregular exacerbations of continued fever. Epistaxis and sudamina, so commonly present in typhoid, are rare in remittent fever. *The chill of remittent differs from that of any other diease whatever.* In typhoid fever sometimes there is a peculiar condition of the patient, which, as we have never seen described, we think it proper to notice. The patient complains of a sensation of intense cold, and in some instances will shiver as with an ague. These nervous shudderings, or instances of extreme nervous irritation as we deem them, may occur frequently during the day or night with great irregularity, disappearing for several days together, and then returning again. So far as our observation goes, these rigors are unattended with the slightest diminution of temperature of any part, the whole surface being rather above the normal standard, even to the most extreme parts; indeed we have noticed these paroxysms to occur in many instances when the patient was in a warm perspiration. It is also worthy of notice, that these chills (as writers term them) are not followed by any perceptible increase of febrile excitement, which is an invariable sequent to the chill of remittent. The pulse, although frequent in both diseases, yet is

attended with fluctuations so different from each other in the respective fevers, as to present a most invaluable aid in diagnosis. Cullen, Parr, Good and others, have declared that in continued fever there are two diurnal exacerbations, whilst in remittent there is only one. We have often verified the truth of their definition, and we feel assured that in doubtful cases the peculiar character of the fever will be detected by this test. The pulse should be counted at short and regular intervals and the thermometer applied throughout the day and night. If the case is continued fever, the fever will arise and decline twice, the first exacerbation occurring in the morning and the second in the afternoon or night. In remittent, only one exacerbation will thus be discovered.*

The perspiration and urine have a peculiar odor in typhoid, which I have never observed in remittent fever. The intestinal evacuations are infinite in their varieties in both diseases, but there is a discharge of a peculiar character in the majority of cases of typhoid which I have never seen in remittent. They are of a shining, reddish-brown appearance, about the consistence of molasses, and seem glutinous in their nature, adhering to the sides of the vessel, and are very offensive. The viscid, green, black, inodorous, bilious evacuations which almost *certainly* denote a *favorable termination* in remittent, I have *never* seen in typhoid fever. In the latter disease, healthful and perfect digestion often returns, and natural and consistent fæces are evacuated sometime before the disappearance of febrile excitement. These we have never witnessed in remittent until convalescence was established. Intestinal hæmorrhage is often present during the course of typhoid fever, but, as a rule, attends only the termination of, and rarely occurs in, remittent. In the former it is often salutary, the blood being of a bright red color, coagulable and healthy in appearance. In the latter it is fluid, black and offensive, and is usually indicative of a fatal termination.

* It has been my rule, when in doubt as to whether the patient has remitten or typhoid fever, to treat it as remittent fever for 48 hours. It will mitigate the symptoms if it is typhoid fever, but *not* cut it short. If it is remittent it will jugulate the disease within that time. In typho-malarial fever it will prove beneficial by eliminating the malarial element, *often the most dangerous factor*, and if not continued more than two days can do no harm, but often moderates the disease.—O. F. M.

I have not thought proper to recapitulate all of the diagnostic signs known, which would be proper in a treatise, but supererogatory in a contribution. It is believed that the foregoing will almost invariably enable the practitioner to detect the proper character of the case.

Nature of Remittent Fever.—As we design this to be a practical paper, we purposely shun the metaphysical labyrinth to which a discussion concerning its cause inevitably tends, a controversy perhaps more protracted than profitable; but an enquiry into the conditions of the organism, as morbidly impressed, comes fully within the proper scope of the present article, as it has an important bearing on the therapeutics of the disease. The attention of the physician can not fail to be first and most forcibly directed to the apparent *unequal distribution of blood* in this malady. He observes a *constant tendency* in the vital current to *retrocede* from the *extremities* to the *trunk* and *head*, and in *grave* cases, from the *whole surface* to the *internal organs*. It is true this tendency is not so conspicuous in the mild form of the disease; for there the natural powers of the system seem competent to resist successfully the *centripetal tendency* of the blood. The symptoms presented in the milder varieties, were, therefore, of a mixed or two-fold character. First, those presented by the action of the morbific cause; and secondly, those displayed by the resistance of the organism against it. In the *more violent form* of the disease, which we have described under the name of *grave remittent*, the phenomena presented are those *chiefly* induced by the *immediate agency of its cause*, and furnish to the scientific observer the *proper phase* for the *study* of its *pathology*. It is from the symptoms, therefore, of this, the most perfect species of the disease, that we shall chiefly endeavor to illustrate its nature.

A person in the enjoyment, apparently, of perfect health, is suddenly, without warning or assignable cause (as is often the case), prostrated. He is cold, but knows it not, but on the contrary has all the gestures of a man oppressed with heat. The blood circulates feebly on the surface, the cutaneous vessels seem almost to have lost their contractility,

and the fluid portions of the blood exhale through their relaxed parieties. The skin is also deprived to a great extent of its sensibility, the most powerful irritants failing to produce any impression. Where is the missing blood? It has not been lost. The colliquative sweat and diarrhœa might indeed subtract from its mass, but in the gravest cases these are often absent! The vital current has passed from our immediate vision, it is true, but it must be somewhere. The axiom cannot be controverted, that in the system there is a certain quantity of blood, and if the normal quantity is absent in one part, it must necessarily be present in excess in another. Happily the overburdened organs speak in a language not to be mistaken. The cerebral pain, the somnolence deepening into coma, with the additional symptoms pertaining to the first variety, betray the congested condition of the cerebral vessels, whilst in the next variety, the cerebellic pain, the difficult and irregular respiration, the tottering gait and sudden temporary loss of motion, denote the inferior portion of the encephalon as the seat of undue phlogosis; and lower down, the spinal pain, with a constantly corresponding torpor and spasm of the intestines, betray an analagous condition of the spinal cord. Of the cause of this inordinate determination to the nervous centres, as we have premised, we do not propose to treat, but that it exists, we think clearly deducible from the symptoms. We deem this most important knowledge, as it indicates an important point in the system of treatment to be pursued. It explains the salutary action of revulsives and derivaties, and it indicates the benefit to be derived from local bleeding from the cerebro-spinal regions. That lesions of the stomach, liver, spleen and intestines, are often observed *post mortem*, cannot be denied, and in portraying the symptoms, we have not failed to exhibit the evidences of such affections during life, but these are proven to be secondary results from two conclusive facts; first, that the symptoms of lesion are not present at the inception of the disease, nor during its course, save when the febrile reaction is decided; and secondly, that they soon disappear after the paroxysms are arrested. But we should not underrate the importance of the fact that

lesions occur because they are sequents of the general pyrexia. They often present barriers to the success of treatment, and experience teaches us that in our efforts to cure, due attention should be given to them, and proper measures adopted for their removal.

Treatment of Mild Remittent.—Active measures will be found usually unnecessary during the chill, as the vital powers are fully competent to produce reaction. I disapprove of the method of torturing the patient with heavy bedclothes and hot applications in this form, but consult his feelings in regard to them and allow cool drinks in moderate quantity.

In the Exacerbation.—If the pulse is hard, or full and resisting, especially if attended with intense cerebral or spinal pain, a moderate *bleeding* from the arm will produce great relief, but this will be *very rarely* necessary. Local bleeding will be generally found sufficient, and is an invaluable adjunct. Leeches to the temples, or cups to the occipital or spinal regions, may be freely applied as the determination may indicate. If nausea and vomiting, or other symptoms of gastric irritation be present, leeches or cups to the epigastrium will be followed by great relief, and if these should be succeeded by a simple enema, under their conjoined action the bowels will gently respond, and add greatly to the comfort of the patient. Cold drinks, ice, the effervescing draught, and lemonade, may be freely allowed. Under this treatment the patient will find great alleviation from suffering, and the intensity of the fever will be diminished. At bed time, say at 9 or 10 o'clock, it is almost our invariable rule to administer a cathartic dose of calomel and rhubarb, of 10 or 12 grains of each. At some period before or after midnight, the fever will generally be found more or less to decline. We prefer this period for the commencement of the abortive means, because our experience teaches us that quinine, the principal remedy, is then better borne, and produces its salutary effects in a more decided and complete manner than at any other time. We now, therefore, usually administer from 10 to 20 grains at a single dose, in pills, or diffused in a wine-glassful of cold water. *We regulate the*

dose by the degree of fever present. If it is *intense*, we administer the *larger quantity;* if *very moderate*, the *lesser will answer.* Under the combined action of the mercurial and quinine, free evacuation of the bowels will usually occur, but rarely excessive. Three or four hours are now suffered to elapse, during which the topical bleeding is repeated if the local symptoms do not yield. The condition of the patient will now be found generally much improved. The cerebro-spinal pain is either removed or mitigated, the pulse less frequent and more soft, the skin relaxed and moist, and the gastric irritation subdued. We therefore repeat the quinine in diminished doses of 5 or 6 grains every 3 or 4 hours, until the period of chill has passed, generally exhibiting altogether from 25 to 40 grains before that time. *In* cases attended with much *gastric irritation* or *diarrhœa*, the addition of a full dose of opium, say 1½ or 2 grains to 10 or 12 grains of the submuriate, at bed time, instead of the rhubarb, forms an excellent combination, which will enable the stomach to retain the quinine, afterwards administered with more certainty. Under this simple plan of treatment, remittent fever, as it appears usually in this section, is certainly and safely cured. We have in this manner arrested the disease in many hundred cases, in one night. Owing, however, to the peculiar liability of the affection to relapse, or terminate in protracted intermittent, we usually continue treatment. We think it advisable to prescribe a mercurial alterative of calomel or mass hydrarg. for 2 or 3 successive nights, followed by 8 or 10 grains of quinine or 25 or 30 drops of oil of turpentine in divided doses on the succeeding mornings. In cases attended with coma, delirium or convulsions during the exacerbation, topical bleeding will be freely required, and the application of cold. We have, however, been more gratified with the effects of the *cold douche*, in these complications, than with any other remedy. A full dose of calomel should be given as soon as practicable, followed by stimulant enemata. In mild cases, however, it will not be necessary to resort to very active treatment, as these symptoms gradually yield with the subsidence of the paroxysm. In this disease occurring in puerperal women, in

addition to the general plan detailed, free local depletion over the uterine region is practised, succeeded by warm fomentations. The local symptoms disappear readily with the arrest of the paroxysms. In the form described under the title of adynamic remittent, occurring as a primary form, this mode of treatment will usually suffice, but in protracted cases, a different practice will be found necessary, as quinine is not borne well, and the antiphlogistic remedies detailed are contra-indicated. Minute doses of calomel combined with opium, will usually be found of great service, along with the employment of the oil of turpentine, which may almost be regarded as a specific in this variety. It is more suitable than quinine in this condition, as it is better tolerated, and whilst it possesses febrifuge properties very similar to the alkaloid, it also exerts a happy influence over the gastric and intestinal irritation so commonly present. It may be given in doses of 10 to 20 drops in emulsion, repeated every 3 or 4 hours until the symptoms yield.

It should be persisted in until the patient is fairly under its influence, unless the effects it occasionally produces, viz., hæmaturia, strangury, or its peculiar intoxication, supervene, when of course it should be discontinued. It would require too much space to speak of this remedy in this place, as it deserves.

Treatment of Grave Remittent.—*The Cold Stage.*—In this grade external means are all important. Warm applications are to be assiduously made to the parts reduced in temperature, together with stimulating frictions. These should be freely applied to the whole length of the spinal column and the extremities. A large blister should be placed over the epigastrium, and if the head is affected, another to the nape of the neck.—*Medicine.* To produce reaction along with these applications, I prefer enemata of quinine. The plan preferred, is to dissolve 10 grains in a wineglassful of weak solution of capsicum (made by adding 20 grains of the latter to a pint of boiling water), with the addition of a few drops of elixir of vitriol. This is thrown up the rectum every half hour until symptoms of reaction ensue. If diarrhœa has been or is present, I prefer enemata of qui-

nine and laudanum, the former first dissolved in water by the addition of the acid, By these means alone, cases apparently hopeless have been rescued. In a case of very protracted cold stage, a combination of 1 grain of calomel, 1 grain of quinine, and ¼th of a grain of opium, together with frequent doses of camphor water, induced a speedy reaction. The oil of turpentine in spinal congestion is also an excellent remedy; 10 or 15 drops alone or combined with laudanum, may be given every 1 or 2 hours, or more frequently.

The Exacerbation.—The reaction is sometimes intense. When this occurs, I have ventured on the abstraction of blood from the arm in moderate quantity with decided benefit, but this is seldom necessary. The case now only requires to be treated as the milder grade, save perhaps with a more liberal use of quinine. A moderate dose of calomel (10 or 15 grains) alone (or combined with 1 or 2 grains of opium, if there is much gastric irritation or diarrhœa),* is followed in 2 or 3 hours by a full dose of quinine (20 grains), and repeated in doses of 5 to 10 grains every 3 or four hours until 35 or 40 grains are taken. The medicine should be so regulated, that the last dose may be taken 2 or 3 hours before the expected paroxysm. I have never seen a chill or cold stage recur after 40 grains of Farr's† sulphate of quinine had been retained. Although the patient may be generally considered out of danger when the paroxysms have been arrested, yet I esteem it to be good practice to prevent relapse by placing the patient on a gentle alterative course, and by repeating the quinine in diminished quantity for several days thereafter.

*Quinine is often defeated in its action by the presence of gastric irritation and inflammation. In such cases it may be given by the rectum. When the intestinal mucous membrane is also in a state of phlogosis, the remedy may be employed hypodermically. Its effects, when administered in this manner, are prompt and decided.

The following is the excellent formula of M. Dodeuil for its hypodermic use:

Distillled water—20 parts.
Sulphate of quinine—2 parts,
Tartaric acid—1 part.

One-third less than *the usual dose of quinine* is required when given by the *skin.* See the author's paper on this subject in *Virginia Clinical Record,* October, 1871, p. 200.

†Now Powers & Weightman's, his successors, who, in my opinion, make the best article in the world. I cannot too warmly express my thanks to them for supplying a pure and reliable agent that has enabled me to save a great many lives. They deserve the highest honor and prosperity.—O. F. M.

Art. II.—**Painful Affection of the Foot (of Morton), with a Case.** By MEADE C. KEMPER, Goshen, Va.

In his Report on Surgery in the Pennsylvania Hospital for 1880, Dr. T. G. Morton described an affection of the foot hitherto overlooked in surgical literature. As the affection seems to be rare, the subjoined case may be of interest

Some time since, Mr. C. S., while walking across a field, twisted his foot and fell. Upon attempting to rise, he found that the foot was so painful he could not stand upon it. He was taken to his house, where the foot was examined. It presented a bruised, *blackened* appearance, as if there had been extravasation of blood, but was not swollen, or if at all, very slightly. No dislocation could be detected. Rest, with the foot well elevated, and the use of anodyne applications, gave entire relief in a few days. A few weeks later he was again affected in an exactly similar manner—the pain being so intense that he involuntarily grasped the foot in his hand and forcibly compressed it. For an instant the pain was agonizing, but the compression produced what he called a "cracking" sound, which was followed by instantaneous relief. Since that time he has been similarly affected on several occasions, and always succeeds in getting instant relief by making forcible lateral pressure.

Dr. Morton has recently collected and reported a few additional cases. The disease is characterized by the most intense pain localized in the third and fourth metatarso-phalangeal joints. Females are not more frequently affected than males, nor the right foot than the left. Swelling is seldom frequent. Most cases result apparently from injury, as a sudden twist of the foot in walking, especially on rough roads. Any exercise which may suddenly displace the toe when confined by a shoe, may produce the trouble. Nothing abnormal is to be found in the joint, and on section through the bone the parts are seen to be normal. According to Dr. Morton, the cause of the trouble is the anatomical relations of the metatarso-phalangeal joints. The first, second and third metatarso-phalangeal joints are on a line, but the head of the fourth metatarsal bone lies from one-eighth to one-fourth of an inch behind the head of the third, and the head of the fifth lies three-eighths of an inch behind

the head of the fourth. The joint of the third is slightly in advance of the joint of the fourth, and the joint of the fifth is considerably behind the joint of the fourth. There is slight lateral motion at the first three metatarso-phalangeal articulations; this is greater in the fourth and fifth. Lateral pressure brings the head of the fifth metatarsal bone and the phalanx into direct contact with the fourth metatarso-phalangeal articulation, and, to a certain extent, the fifth metatarsal rolls above and under the fourth. This gives an opportunity for bruising the digital branch of the eternal plantar nerve, and it is to this that Dr. Morton ascribes the pain.

The treatment, according to him, should consist of rest, anodyne lotions, and perhaps local blood-letting. A narrow flannel bandage can be applied around the foot so as to give moderate support to the toes. After the subsidence of the pain, the patient can be allowed to go about, but should wear a shoe with a thick, broad sole—a thin soled shoe is not to be used. The shoe should lace, and in some cases should open beyond the irritable joint. In one case no treatment was of service until the excision of the fourth metatarso-phalangeal joint. Perfect recovery with an entirely useful foot resulted.

Dr. Morton lays stress upon the fact that there should be *no lateral pressure* upon the foot. In the case seen by me, lateral pressure always gives relief after the first instant, nothing else does. Why, I don't know, unless it be upon the principle of *similia similibus curantur*—a principle I am not prepared to accept.

ART. III.—**Recurrent or Obstinate Malarial Attacks.** By JOHN H. POOL, M. D., South Mills, N. C.

Nothing is more trying to the patience of the physician located in the malarial districts of our Southern country, than the recurrence of "chills and fevers." He is called to a patient suffering from malarial fever, and by the administration of proper remedies the patient is promptly restored. In the course of six or nine or twelve or fifteen days, if the

original attack is of the tertian type, the patient appears with a green visage and a shivering frame, and reports a return of the chills. This is repeated until nature is almost worn out or frost puts an end to the trouble (and frost often fails).

Now, what shall we do to prevent our treatment being brought into discredit? By close observation, we will find that tertians recur in six, nine, twelve, fifteen or eighteen days, and in quotidians on the second, fourth, or sixteenth days.

I have been more successful in the treatment of these recurrent chills by the following plan of treatment than from any other: Give fifteen to twenty grains of quinia or cinchonidia three hours before the expected paroxysm. I prefer one large dose to the same quantity given in broken doses at intervals of an hour or two. One large dose will cause less distress to the patient than small doses at short periods. By giving one large dose we will break up the paroxysm, for none of it will be eliminated by the kidneys until the work is done. But to prevent their return, further treatment is required. On the critical days referred to above, repeat the anti-periodic in ten-grain doses. To reduce the enlarged spleen (which is nearly always present), and to bring the liver into its normal condition, I administer Lugol's solution with ten grains additional of iodide of potassium to the ounce in five or ten drop doses before meals, and three to five drops of Fowler's solution after meals. Without these adjuncts the treatment is apt to prove a failure. On the fourteenth and twenty first days give the anti-periodic again for a day or two.

For the last five years I have been using largely cinchonidia sulphate, and I have yet to discover that it is not equally as efficient, as a periodic, as quinia sulphate. In the convulsions of children resulting from congestion of the brain in these disorders, I have found nothing better than a combination of chloral hydrate, bromide of potassium and sweet spirits of nitre in appropriate doses.

ART IV.—**Some of the Therapeutical Uses of Nitro-Glycerine.***

By WILLIAM A. HAMMOND, M. D., Surgeon-General U. S. Army (Retired List); Professor of Diseases of the Mind and Nervous System in the University of the City of New York, etc.

If a drop of a solution of nitro-glycerine in alcohol, in the proportion of one part in a hundred, be placed on the tip of the tongue, a sensation of fullness and pain in the head (mainly in the frontal region) is experienced in the course of three or four minutes. This fulness disappears in a short time. A dose of three or four drops of the strength mentioned, produces headache of much greater severity and of longer duration. The carotid and temporal arteries pulsate with increased force; the head feels as if it is about to burst open; the face becomes red; the action of the heart is augmented and the respiration becomes more frequent. These symptoms are indicative of cardiac and vascular excitement, and of cerebral hyperæmia. We should therefore *a priori* expect that nitro-glycerine would be useful in those cases in which it was desirable to stimulate the circulatory system and to increase the amount of the intra-cranial blood. For the last two years I have made frequent use of this very powerful agent, and it has occurred to me that the results of my experience might be of interest to the members of the Neurological Society and to the profession at large.

First, however, a few words in regard to the preparation to employ and the method of using it. There are great differences in nitro-glycerine (or glonoin, as it is sometimes called), as it is met with in the shops. Some specimens of it are altogether inert, and some are of such extraordinary strength as to render their employment dangerous. I make use of that prepared by Bernicke & Tafel, of this city, which contains ten parts in every hundred, that is, ten of nitro-glycerine and ninety of absolute alcohol. This I use as the basis of my prescriptions, and I dilute it further by admixture with alcohol to the extent of ninety parts to ten of the drug. Thus:—

℞. Nitro-glycerine (one-tenth).....minims xl.
Alcohol.....ʒvj.
M. Ft. sol.

* Read before the New York Neurological Society, October 4th, 1881.

One drop of this solution contains the one one-hundredth ($\frac{1}{100}$) of a drop of nitro-glycerine, and I never begin the treatment of any case with a larger dose than a drop of this dilution.

Some apothecaries, as I have ascertained by actual experience, do not know anything about the agent. When it is prescribed, they send for it and get the pure substance which —regardless of the figures $\frac{1}{10}$ on the prescription, the meaning of which they do not know—they proceed to add in the proportion of minims xl, to ℥vj of alcohol. The consequence is that a solution is formed, every drop of which contains the one-tenth of a drop of nitro-glycerine; such a dose is calculated to produce very serious and painful symptoms not unattended with danger.

Again, they may produce a solution which already contains only one-hundredth or even one-thousandth of the agent. If minims xl of such a dilution are still further diluted with ℥vj of alcohol, a degree of attenuation is reached which may be of some value to those with homœopathic proclivities, but which is altogether inert as a remedy.

It is necessary, therefore, for the physician employing nitro-glycerine to take special care that the strength of the solution is exactly what he wants; otherwise he may get very much more effect than is desirable, or none at all. It would perhaps be better for him to procure Bernicke & Tafel's one-tenth dilution and prepare his prescriptions himself.

Migraine or Hemicrania.—Du Bois Reymond is of the opinion that migraine is always the consequence of a spasmodic contraction of the blood vessels of the brain, by which their calibre is diminished. Mollendorf, on the other hand, contended that there is a relaxation of the vessels. According to the one theory, there is in migraine cerebral anæmia; to the other, cerebral congestion. But it is quite certain that neither of these views is exclusively correct, and that both are partially so. Eulenberg and Gutman held that in some cases of migraine there is cerebral anæmia, due to a tetanoid condition of the muscular coat of the arteries, while in others there is cerebral hyperæmia or congestion, resulting from a paralysis of the muscular coat. Berger, in his excellent

monograph, expresses the same opinion, and my own experience, which has been extensive, convinces me that there is no doubt that this latter theory is the correct one. Both clinical observation and the action of remedies show us that these are the two essentially distinct forms of the disease.

Without going into a detailed consideration of the diagnostic marks of the two varieties of migraine (for which I must refer the reader to the special works on the subject), I will only say that ophthalmoscopic examination will generally indicate to us the nature of the particular attack with which we have to deal. In the congestive form, the fundus of the eye of the affected side is, as Mollendorf observes, of a bright scarlet color, while that of the sound side retains its ordinary brownish-red tint. In the anæmic variety the fundus is, as I have repeatedly ascertained, of a pale rose hue—a circumstance only to be explained upon the hypothesis of a diminished amount of blood in the cerebral vessels of that side. Besides this, it will almost invariably be found that if, in a doubtful case, pressure be made on the carotid artery of the side corresponding to that on which the pain in the head is felt, the pain is increased if the attack be of the anæmic form; while if it be of the congestive type, the suffering is immediately mitigated. Of course it is very essential that a correct diagnosis be made, for on that depends the kind of treatment to be administered.

Now, if it be satisfactorily determined that the patient is suffering from the anæmic variety of migraine, I at once administer a drop of the solution of nitro-glycerine of the strength of one-hundredth, as just described. In fifteen minutes, if relief be not obtained, I give another drop. I have very rarely had occasion to give a third dose, for amendment has generally begun with the first drop, and a second dose almost invariably completes the cure of the paroxysm.

Attacks of migraine are generally periodical, though often in persons subject to them they may be excited by various causes, such as indiscretions in diet, emotional disturbance, or severe physical exertion. When the time comes round for a paroxysm to occur, the patient should, two or three days before it is due, begin to take the nitro-glycerine solution in

doses of a drop three or four times a day, and continue the use of the remedy for a like period afterwards. When an attack is threatened from any of the causes mentioned, a like course should be pursued.

It is rarely the case that the two varieties occur in the same person, and hence when the anæmic form has been diagnosticated, it is safe to assume that all subsequent paroxysms or attempts at paroxysms will be of the same kind.

I have treated many cases of the anæmic form of migraine with nitro-glycerine, and though I cannot say that it has uniformly been successful, I know of no one agent so well calculated to give good results, and no one from which good results so generally flow. In one very severe case occurring in a lady of this city, the effect was so striking that it seemed to come from some occult influence (seemed so to her at least). She lay in the bed in complete darkness; not a sound was allowed to come near her chamber, for light and sound greatly intensified her suffering; her skin was cold and clammy; her face pale, and the pain that racked her head was so agonizing that at times her mind wandered. One drop of the solution of nitro-glycerine was given her, and in fifteen minutes the spell was broken. Another drop, and the pain was gone; her face was flushed, and her feeble pulse was replaced by one of strength and fulness. She was well but weak. A sound sleep of three hours followed, and then she was as well as she ever was in her life.

I did not intend to cite any cases, but this one occurred in my practice while I was writing this paper, and it was so apposite that I could not refrain from adducing it, though it is not essentially different from many others.

But I do not yet definitely know that nitro-glycerine will, in every case, effect a complete cure of migraine, for the time is yet too short for such knowledge to be obtained. All to whom I have administered it continue to take it. There is every reason, however, for thinking that eventually the habit will be overcome and that the organization of some, at least, of the patients will be so modified that the disease will no longer be possible.

Epilepsy.—Unless there is some contra-indication arising

from heart complications of an organic character, I never begin the treatment of an old case of epilepsy. in which the bromides have been given with only partial effect, without administering nitro glycerine. I do not stop the bromides, for they are needed for their permanent influence, but I give the nitro-glycerine in addition, and I am entirely satisfied that it is a most important adjunct in the treatment of this disease. It is well known that the bromides, as a rule, have very little curative influence over that form of epilepsy known as the *petit-mal*, and it is in this phase that nitro-glycerine is most efficacious.

But it must be given somewhat differently than in migraine, for a more persistent effort is necessary.

Usually, I begin with one drop of the solution mentioned, three times a day, and every month I increase the doses a drop. Thus for the first month the patient takes, as I have said, one drop three times daily; the second month two drops three times a day are given; the third month three drops, and so on for a year, when the dose will be twelve drops three times a day. I have now under treatment a little six year old girl, who, when she came under my care, was having as many as twenty attacks of *petit-mal* daily, characterized by loss of consciousness for a moment and a few clonic spasms of the left arm. She had also an attack of fully developed epileptic paroxysms about twice a week, sometimes oftener. The bromide of sodium was at first given in doses of five grains three times a day, and these were gradually run up to fifteen grains; but although the attacks of the *grand-mal* were arrested, not the slightest effect was produced upon the slighter and more numerous seizures. The nitro-glycerine was now administered, and at once these both began to diminish in force and frequency, and at the end of a month had ceased altogether. I nevertheless continue the remedy, and she still takes it in doses now of five drops three times a day with eight grains of the bromide of sodium, and for the past three months she had no attack of either kind.

My experience with nitro-glycerine in epilepsy has not yet been long enough to warrant the expression of any con-

fident assertion relative to its permanently curative influence, but I have seen enough of its action to enable me to state that the therapeutical promise is good, especially as regards those forms of the disease in which there is little or no convulsive movement. During the time that I have given it (and two cases have now been under its influence for a little over a year) I have never seen any unpleasant effect produced—except sometimes a prolongation of the headache—if care be taken to give the proper strength and not to increase the doses too rapidly. And it must be borne in mind that a slight headache should follow the administration of every dose, except in those cases of intense cerebral anæmia existing in the form of migraine, to which attention has been directed in this paper. Here the action of the remedy seems to be directed to the restoration of the calibre of the cerebral arteries to their normal dimensions, while in the healthy subject or in those who are liable to sudden anæmia of the brain (as in the first stage of epilepsy), the action is to augment the diameter of vessels then of their normal size, and hence cerebral congestion and pain are produced.

This congestion and pain are but of short duration, but the proclivity to spasmodic contraction which in cases of epilepsy the vessels possess, is lessened for a comparatively long period, and hence a prevention of seizure results.

I have ascertained, however, that at least three doses a day are necessary, and occasionally I have given as many as four for a time. The first dose should be given before the patient leaves the bed in the morning, especially if, as often is the case, the attacks show a special preference for occuring in the early morning. I have frequently prevented such seizures by directing the patient to keep the medicine and a lump of sugar by the side of the bed, and to take the first dose immediately on awaking. The second dose is to be taken sometime in the afternoon, and the third just before going to bed.

I have also had good effects from nitro-glycerine in cases of the *status epilepticus*—that peculiar condition in which one paroxysm succeeds another so rapidly, that there is no intervening condition of consciousness better even than those

obtained from the administration of the nitrite of amyl. In one instance doses of a drop every ten minutes up to five drops succeeded when the nitrite of amyl had been thoroughly tried without benefit.

There are other affections in which nitro-glycerine may be used with great advantage, and chief among them is the ordinary headache to which anæmic women are subject. Here a single dose of a drop will often cut the attack short at once. In vertigo due to a like cause—an anæmic brain—its action is equally efficacious.

I cannot conclude these brief remarks without again impressing upon those about to use this powerful agent the necessity of care in the administration and in providing for obtaining a pure article of known strength.

Clinical Reports.

Removal of a Mammary Cancer by Caustic.* By ALEXANDER HARRIS, M. D., Jeffersonton, Culpeper County, Va.

Was requested to see Mrs. ——, on December 9th, 1878. Patient is 50 years of age, married, and the mother of five children, the youngest fifteen years of age. She has a cancer of the scirrhus variety, involving the outer two-thirds of the right mamma, including the nipple. The tumor has ulcerated, and presents an open sore, yielding a thin, sanious discharge, the fœtor from which is so offensive that she has constant nausea and anorexia. There is a chain of enlarged lymphatics leading from the mamma to the axilla, the glands in which are greatly enlarged. She suffers intense lancinating pain in the part, which has precluded refreshing sleep for weeks, notwithstanding the liberal use of laudanum. The cancerous cachexia is strongly marked, and the countenance is indicative ef great suffering. There is great emaciation. Pulse 130 to the minute and feeble. She first discovered the tumor about two years ago, and it has been ulcerated and presenting an open sore about two months. Excision, under the circumstances, offers no hope of palliation. She would be unlikely to survive the shock. She insists, however, upon an attempt to relieve her sufferings, and

*Read before the Northeastern (Va.) Medical Soeiety at its July meeting, and requested for publication by said Society.

has determined, notwithstanding her feeble condition, to attempt to visit a New York charlatan specialist to have her cancer removed by caustic.

Under these circumstances she is advised to submit to the caustic treatment at home, with the distinct understanding that palliation only can be hoped for. Her consent having been obtained, a paste of anhydrous sulphate of zinc, in the proportions of zinc ℥ij, axunge ℥j (as advised by Dr. Tanner in his *Practice*, page 138) was selected as the most suitable caustic agent, and after seventeen daily applications the entire diseased mass separated from the sound tissues, leaving a healthy granulating surface which at the end of three weeks had healed entirely. The action of the caustic was rendered entirely painless by a hypodermic injection of morphia and atropia at each application of the paste; and it was observed that the fœtor emanating from the sore and filling the room—and which had added so largely to the discomfort of the patient—had entirely disappeared after the first application. Nausea yielded at once, and appetite returned; so that, at the end of three weeks, when the tumor came away, the strength and general health of the patient had so much improved, that she was able to walk about the house; whereas, when treatment was begun, she was unable to leave her bed. As general medication, my patient took a teaspoonful, thrice per day, of the following mixture:

℞. Acid acet. glacial.....gtt. xxx.
Tinct. belladonna..... ℥j
Fluid ext. cinchona.....
Tinct. cardamon, comp..... ..... aa ℥iv

Mix.

She was kept upon as nutritious diet as her stomach could digest. Under this management she continued to gain in flesh and strength (being able to ride about the neighborhood) until the following May, when she was attacked by pneumonia—which was epidemic at the time—to which she succumbed in a few days.

My object in reporting this case, is to call the attention of the Fellows of this Society to what I conceive to be the importance, to the patient and as well as to the surgeon, of the adoption of this plan of palliation, and sometimes curative treatment of malignant growths by the profession, instead of allowing such patients to undergo the torture too often inflicted by the ignorant and rapacious quack specialists.

As authority for this treatment, I quote Dr. Tanner, who says: "My own experience with this plan of extirpating scirrhus and medullary tumors of the breast has been gradually increasing during the past few years; and the more I see of the practice, the greater is my opinion of its merits." Then follows a report of six cases treated by him—four of the scirrhus and two of the medullary variety. Three of these cases were apparently cured at the end of four, two at the end of two, and one at the end of three years. Of these cases, one only had reached the stage of ulceration.

It is a well-known fact, that sufferers from malignant disease, failing to obtain hope of cure or palliation from the intelligent surgeon, by excision, after the involment of the lymphatic system, at once seek the aid of a "cancer-curer," located generally in one of the larger cities, who applies his caustic (usually composed of some one of the arsenical preparations), regardless of the intensity and duration of pain induced, making no effort to prevent or palliate it, and equally regardless of the general condition of the patient.

But this is not all. Impressed with the helplessness of the proof, and aware of the reported cures by quacks, patients frequently betake themselves to one of these gentry, without an examination by, or consultation with, a surgeon. As soon as an abnormal growth is discovered (when in his hands), or an obstructed lacteal duct, or benign tumor, becomes a cancer, the caustic is applied, a large portion of a healthy mamma destroyed; and, if the patient be of robust constitution and in good health, she returns to her friends, at the end of two or three months, anæmic and reduced in flesh, with the loss of a sound mamma, and a few hundred dollars along with it. Such a case has come under my observation.

Tolling of Bells.—*The Cincinnati Lancet and Clinic* says that the physicians of Nashville have petitioned the Common Council to prohibit the tolling of bells for funerals, as the tolling has had a very injurious effect on the *rest* of their patients. Is there a pun intended on the *rest?*

Extensive Adhesions of Hypertrophied Tongue to the Under Lip and Floor of the Mouth—False Anchylosis of Jaws—Immovable Tongue—Salivation—Baptisia Tinctoria. By J. GRAMMER, M. D., Halifax C. H., Va.

The following case may be worthy of record, if only to show that a woman can hold her tongue.

Two or three months before I saw her, Phebe H., a negress, aged about 25, had salivated herself very badly. I found her with the tongue protruding nearly two inches, very much hypertrophied, and firmly attached to the lower lip by a band of adhesions which occupied the whole width of the tongue, with the exception of one place just under the raphé, which was only large enough to admit a probe to touch the teeth. The lip was adherent to the gum up to the crown of the teeth, only five of which, as I afterwards discovered were remaining, and these were imbedded in the tongue. The band of adhesion occupied the whole depth of the lip—from the crown of the teeth to its edge being about half an inch. From long disuse the jaw had become anchylosed (falsely so), and as the tongue was immovable also, it was rather surprising how she could articulate at all. But she did manage to make herself sufficiently intelligible. There was no ulceration remaining, so far as could be seen, but saliva was flowing from the mouth in a constant and profuse stream.

Nearly two ounces of chloroform were given her without producing full anæsthesia, but I succeeded in dissecting loose the adhesions between the tongue and lip, and also between the tongue and two of the spaces which had been occupied by missing teeth. At this point her struggles became so violent, and the supply of chloroform being nearly exhausted, and the flow of blood and saliva being so great, I determined to wait awhile before attempting any further dissection, should any be needed, of which I was not sure The tongue was so hypertrophied, the jaws being immovable, that it occupied nearly the whole cavity; and being held fast also by the projection of the lower teeth into it, it was impossible to force it back into the mouth.

Nearly a week had elapsed before I was able to accomplish this, and then I found that there was another band of adhesion binding the left side of the tongue to the inner aspect of the gum. This was about a quarter of an inch broad, but I was unable to find out how far back it extended. The pa-

tient refused positively to permit this to be cut, and I had become so disgusted with her stolidity, obstinacy, intractability and impertinence, that I gave her up to her own devices.

It may be of interest to state that I used the tea of wild indigo (baptisia tinctoria) as a mouth-wash and to saturate the cloth that was kept interposed between the cut surfaces. My attention had just been called to its disinfectant, antiseptic, alterative and healing qualities, and as far as one could rely upon a single trial, it proved all that could be wished. The fetor of the breath and suppuration was immediately controlled by it. Granulation and cicatrization were very satisfactory and rapid, but they may have been partly due to the robust condition and strong constitution of the patient. I am so well pleased with its apparent success in this instance that I shall try it again.

Correspondence.

American Pharmaceutical Association.

[From our Special Correspondent.]

KANSAS CITY, MO., August 23rd, 1881.

Mr. Editor,—The American Pharmaceutical Association held its Twenty-Ninth Annual Meeting in this place, commencing Tuesday, August 23rd, and closing on the evening of the 26th, in Masonic Hall on Main street. The Eastern members, for the most part, arrived in the trains which reached here Tuesday morning, although quite a large number had arrived on Monday, and by noon of Tuesday the seven or eight hotels were crowded to their utmost capacity.

The meeting was called to order by Mr. Shafer, of Iowa (1st Vice-President), the President, Mr. Shinn, of Philadelphia, not having arrived. A prominent lawyer of the city, whose name I cannot recall at this time, was introduced, and delivered an address of welcome by request of the Mayor, for whom he was acting. Mr. Shafer then delivered the President's annual address. Then, of course, came the usual preliminary business of appointing committees on creden-

tials, on President's address, on nominations of officers for the ensuing year, &c.

There were about four hundred members present (the Association has now on its roll about 1500), the majority of whom were from the Western States. The heat was excessive, thermometer 106° F. in the shade, and *nolens volens*, we were warmed up to our work.

The next morning (Wednesday), the Convention met at 10 o'clock, and elected the following gentlemen as their chief officers for the ensuing year:

President—Professor P. W. Bedford, of New York.

1*st Vice-President*—Emil Painter, of San Francisco.

2*nd Vice-President*—George Lies, of Lawrence, Kansas.

3*rd Viee-President*—Prof. J. M. Judge, M. D., of Cincinnati, Ohio.

Secretary—Prof. John M. Maisch, of Philadelphia.

Treasurer—Charles A. Tufts, M. D., of Dover, New Hampshire.

Organization for the ensuing year having been disposed of, and the new officers installed, the Convention proceeded at once to the work which characterizes it as a scientific body, *i. e.*, the reading and discussion of scientific papers and essays, which developed much useful and valuable information, but which the limits of this letter will admit of only a passing notice.

Among the new things presented to the attention of the Convention, one was "*Resorcin*." This is a new antiseptic, which is said to be non-poisonous, and claims to take the place of carbolic acid. It is said to be made by the action of strong alkalies on resin. Another is "*Papayotine*," the alkaloid obtained from a plant called *Carica Papaya*, which grows in South America. This is called vegetable pepsine, and is recommended to take the place of the well-known animal pepsine. Still another new drug presented was *gum accroides*, which is also a South American product. This drug, it is claimed, is a cheap substitute for gum benzoin. When heated it has the odor of Benzoin, but so far as I could judge I do not think it will ever displace benzoin.

Professor E. B. Stewart, of Chicago, read a paper upon

the "Microscopic History of the Rhizome of Apocynum Cannabinum." This was a very important paper, and brought out much valuable information. The thanks of the Association were voted to Prof. Stewart for the masterly manner in which he handled the subject.

A voluminous paper prepared by Prof. J. U. Lloyd, of Cincinnati, relating to the Senega (of commerce), was read by Prof. Saunders, of Ontario, Canada. This paper had been prepared with much labor, and evidenced a vast research. The President stated that perhaps no person living knew more about Senega than Prof. Lloyd, and his paper was unusually interesting.

But without going into such details as would inevitably make this letter too long, I will just mention a few of the "queries" which were answered by instructive and interesting essays, to give an intelligible idea of the character of the work of this Association.

For instance, Query No. 10: "Give working formulas for the various Pharmaceutical preparations of Cod Liver Oil in use in the United States, and of such as may appear desirable from other countries?" This was answered in a paper by H. E. Griffith, of Niagara Falls.

Query No. 12: "Can Grape Sugar or Glucose be substituted for Cane Sugar, Honey, or Glycerine in Pharmaceutical preparations?" Answered in an essay by Charles B. Allaine, of Peoria, Illinois.

A telegram was received and read by the Secretary, inviting the Association to hold its next meeting in Detroit, Michigan, but the committee on that subject having reported in favor of Niagara Falls, it was voted to accept the invitation to meet there on the second Tuesday in September, 1882.

The meeting was in fact one of the largest and most profitable ever held, and two hundred and forty-two new members were elected. The druggists of Kansas City did not distinguish themselves in the matter of hospitality, but they did send up to the Coate's House (which is the most fashionable hotel, and where most of the visiting ladies were) a few carriages in which the ladies were seated and driven about to the various points of interest through dense clouds of dust.

And on the last evening of our sojourn with them they tendered us a complimentary cold water supper with orchestral accompaniment. The entertainment occurred in the Board of Trade Hall, where the extensive exhibition of drugs, chemicals, surgical instruments, and all the various articles which are kept in drug-stores were most attractively arranged. Among others, the exhibition of druggist's pill and powder boxes in great variety by Messrs. J. W. Randolph & English, manufacturers, of Richmond, Va., was one of the most striking things in the Hall, and commanded universal attention and admiration. But as the readers of your journal well know, everything in this world, not excepting the lives of some of their best paying patients, must come to an end; and this letter has no claim to any exception to this universal law. B.

Original Translations.

From the Spanish and French. By CHAS. R. CULLEN, M. D. (P. O. Richmond, Va.), Henrico Co., Va.

Sterility.—Where there is sterility, the first impression is, that the cause of it is in the man or the woman; but most generally, sterility is due to the woman. This idea among the people is often held by physicians. If an examination is made among those desiring children, it is often to convince the husband that he is as much in fault as the wife. Leaving out other causes of sterility, let us attend exclusively to those in the male. To ascertain the fecundative strength of the male semen, the best plan is to examine into the matter histologically. It is not rare to find, in cases of this kind, a product completely deprived of spermatozoa, and the result is that the semen is unfruitful. If, on the contrary, there is a large number of spermatozoids, the conclusion reached is, that the impregnation of the ovule is sufficient to produce a new being. That is the general opinion, and this point I call special attention to. In three cases of the kind, no satisfactory explanation could be given. With one of the females, there was a certain degree of vaginitis and a spasmodic contraction of the neck of the uterus. To overcome this defect, I proposed a dilatation of the cervix

by sponge tents. At the end of several months—not having seen any signs of pregnancy—I had recourse to artificial pregnancy, immediately at the cessation of the monthly flow.

The writer goes on to say, that the male semen examined contained spermatozoids. These efforts were vain, and also six other cases experimented on at different periods of time after the cessation of the menstrual flux. I again examined the spermatozoids, and, though finding them to exist in large numbers, they were for the most part immovable, and those containing living germs soon died; while in ordinary normal state, the movements of these germs continued sometime. My attention being called to the fact, I found in other cases of sterility a similar condition, of germs living only for a short time.

In three cases, two presented signs of tuberculosis; the other had nothing but debility to be noticeable. I do not desire to generalize my observations. Nevertheless, it seems to me that the opinion of several authors—that the presence of spermatozoids in the semen is sufficient to produce conception—is too absolute and should be modified. I hold that it is necessary to have a great degree of activity for the purpose. Deprived of this quality, which is necessary for it to reach the ovule, though great in number, fecundity is impossible. The facts I report seem to justify my opinion. [Dr. De Sinety before the Paris Biological Society.]—*Gazette Medicale de Paris.*

Obligatory Vaccination.—The editor-in-chief *Journal de Hygiene*—Dr. Pietra Sauta—has addressed several letters to the French Assembly on this subject. The Academy of Medicine voted 46 for the law and 19 against, and two blanks, and accepts the principle of obligatory vaccination; and, while recognizing the utility and importance of re vaccinations, the Academy does not believe in the right to enforce it by a coercive law. The minority vote contained brilliant members of the Medical Faculty—Depaul, Hardy, Guerier, and Parrey. The arguments presented against the law have not been attacked. On the other hand, the laws of foreign countries have been brought to bear in favor of the law. In England the vaccination act of 1867–71 allowed coroners to inflict a fine of sixpence. In Germany, the report before the Parliament is in these words: "Considering the many decisions rendered by the courts, and that it is born of theory, called inequality of human rights, it is irreconcilable with the dignity of law." As already stated, in Italy

the Senate refused to subscribe to the principle of obligation in the Sanitary Code of the kingdom. In Spain, the most eminent hygienists only admit the keeping of such a law by the support of legions of national guards. In France, M. Linnville demands obligatory vaccination and re vaccination every ten years. M. Maquet calls for obligatory vaccination and adult re-vaccination. The French Academy favors obligatory vaccination, but not re-vaccination.

Under these conditions, the members of the French Academy are called upon to vote. The great principle of this proposed law attacks that of individual liberty—the authority of the head of the family. M. Blot and Fauvel calls the principle as *salus populi suprema est lex*. To the aid of the anti-obligatory party, letters from distinguished Englishmen are offered, such as Sir Wilfred Lawson, George Canning, Robert Peel, W. E. Gladstone, John Bright and Stuart Mill.

Hernia Operation.—[From the Swiss *Revue Medicale*, by Prof. Julliard.] A woman, fifty-seven years of age, had worn a bandage for hernia ten years. Strangulation had taken place, and, after twenty-four hours, had been reduced by taxis. On the 13th of February the woman had put on the bandage improperly, and the hernia came out. Strangulation with intense pain and violent vomiting set in. The doctor found taxis insufficient. Through the night and next day no relief, and the patient entered the hospital February 14th, 1881. The hernia was on the right side and as large as two fingers; irreducible and very painful, and the patient had continued vomitings. The patient being etherized and the taxis failing, I proceeded to the operation. The sac being opened, I discovered a great mass of epiploon, in the midst of which I found a pocket of intestine, deeply red, black in some portions, and exhaling a gangrenous odor. The sac contained a quantity of brown, feculent liquid. Not desiring to replace the intestine in such a condition, I decided to resect. I drew out the intestine as far as I could. After having tied the mesentery with catgut, I seized the two extremities of the sac with forceps, after the manner of Kocher. I cut off with scissors above the strangulated part, where it was in a healthy condition. I united the ends by suture, but the forceps clogged with the threads. I overlapped them. A quantity of fluid escaped at the upper end. The two ends of the intestine being held by an assistant, I proposed to make the suture of Jobert; but as the superior end was larger than the other, Jobert's plan could not be carried out. I placed, then, around the circumference of the intestine four catguts, after the pro-

cess of Lambert—with this difference, that instead of making the thread come out near the section of the intestine, I brought it out a centimeter and a half from the section. I obtained the double invagination of Jobert, and behind that invagination a suture of Lambert; then united the folds of the mesentery with four catguts, and made a large opening of six centimeters in length to replace the intestine, with two drainings in the lower part of the incision.

In spite of a severe cough owing to a chronic catarrh, the operation was excellent in results. On the second day, operations took place from the bowels, and re-union was complete by the 6th day; a little suppuration occurred on the 8th day. On the 14th day there was a severe ague; the agitation was excessive, etc. On the 15th March I passed the patient to the Medical Clinic, and she was sent to the Asylum of Vernais, where she is still, better. [Abbreviated report.]

Choleraic Diarrhœa.—(Hardman.) When this disease has resisted for more than two hours, doses of quiniæ and morphine given by the mouth, if there are cramps of cold shiverings and collapse, it is advisable to recur immediately to hypodermic injections of large doses of morphine. Dr. Hardman affirms this treatment to be without danger, even when there is temporary suppression of urine, or when albumen is present. He injects habitually two centigrammes ($\frac{3}{10}$) of a grain of morphine at a time under the skin. In grave cases, one-third more; and in eight observations, the diarrhœa was arrested after the injection. The vomitings often continue after the diarrhœa. When the discharges are bilious, and the vomitings bilious, injections only can cure.

Analyses, Selections, etc.

Post-Mortem of President Garfield.—The October issue, 1881, of the *American Journal of the Medical Sciences* contains the following *official* report of the autopsy of President Garfield, prepared by the Surgeons in charge:

Record of the Post-Mortem Examination of the Body of President J. A. Garfield, made September 20, 1881, *commencing at* 4.30 *P. M., Eighteen Hours after Death, at Francklyn Cottage, Elberon, New Jersey.*—Present and assisting, Dr. D. W. Bliss, Surgeon-General; J. K. Barnes, U. S. Army; Surgeon J. J. Woodward, U. S. Army; Dr. Robert Reyburn; Dr. Frank H. Hamilton; Dr. D. Hayes Agnew; Dr. Andrew H Smith, of Elberon (and New York); and Acting-Assistant-Surgeon D. S. Lamb, of the Army Medical Museum, Washington D. C.

Before commencing the examination, a consultation was held by these physicians, in a room adjoining that in which the body lay, and it was unanimously agreed that the dissection should be made by Dr. Lamb, and that Surgeon Woodward should record the observations made. It was further unanimously agreed that the cranium should not be opened. Surgeon Woodward then proposed that the examination should be conducted as follows:

That the body should be viewed externally, and any morbid appearances existing recorded. That a catheter should then be passed into the wound, as was done during life to wash it out, for the purpose of assisting to find the position of the bullet. That a long incision should next be made from the superior extremity of the sternum to the pubis, and this crossed by a transverse one just below the umbilicus. That the abdominal flaps thus made should then be turned back and the abdominal viscera examined. That after the abdominal cavity was opened the position of the bullet should be ascertained, if possible, before making any further incision; and that, finally, the thoracic viscera should be examined.

This order of procedure was unanimously agreed to.

The examination was then proceeded with, and the following *external appearances* were observed:

The body was considerably emaciated, but the face was much less wasted than the limbs. A preservative fluid had been injected by the embalmer, a few hours before, into the left femoral artery; the pipes used for the purpose were still in position. The anterior surface of the body presented no abnormal appearances, and there was no ecchymosis or other discoloration of any part of the front of the abdomen.

Just below the right ear, and a little behind it, there was an oval ulcerated opening, about half an inch in long diameter, from which some sanious pus was escaping, but no tumefaction could be observed in the parotid region.

A considerable number of purpura-like spots were scattered thickly over the left scapula, and thence forwards as far as the axilla. They ranged from one-eighth to one-fourth of an inch in diameter, were slighty elevated and furfuraceous on the surface, and many of them were confluent in groups of two to four or more. A similar but much less abundant eruption was observed sparsely scattered over the corresponding region on the right side.

An oval excavated ulcer about an inch long, the result of a small carbuncle, was seated over the spinous process of the tenth dorsal vertebra. Over the sacrum there were four small

bed-sores, the largest about half an inch in diameter. A few acne pustules and a number of irregular spots of post-mortem hypostatic congestion were scattered over the shoulders, back, and buttocks. The inferior part of the scrotum was much discolored by hypostatic congestion. A group of hæmorrhoidal tumors, rather larger than a walnut, protuded from the anus.

The depressed cicatrix of the wound made by the pistol-bullet was recognized over the tenth intercostal space, three and a half inches to right of the vertebral spines. A deep linear incision (made in part by the operation of July 24th, and extended by that of August 8th) occupied a position closely corresponding to the upper border of the right twelfth rib. It commenced posteriorly about two inches from the vertebral spines and extended forwards a little more than three inches. At the anterior extremity of this incision, there was a deep, nearly square, abraded surface about an inch across.

A well-oiled flexible catheter, fourteen inches long, was then passed into this wound, as had been done to wash it out during life. More resistance was at first encountered than had usually been the case, but after several trials the catheter entered, without any violence, to its full length. It was then left in position, and the body disposed supinely for the examination of the viscera.

The *cranium* was not opened.

A long incision was made from the superior extremity of the sternum to the pubis, followed by a transverse incision crossing the abdomen just below the umbilicus. The four flaps thus formed were turned back and the abdominal viscera exposed. The subcutaneous adipose tissue divided by the incision was little more than one-eighth of an inch thick over the thorax, but was thicker over the abdomen, being about quarter of an inch thick along the linea alba, and as much as half an inch thick towards the outer extremity of the transverse incision.

On *inspection of the abdominal viscera, in sitû*, the transverse colon was observed to lie a little above the line of the umbilicus. It was firmly adherent to the anterior edge of the liver. The greater omentum covered the intestines pretty thoroughly from the transverse colon almost to the pubis. It was still quite fat, and was very much blackened by venous congestion. On both sides its lateral margins were adherent to the abdominal parietes opposite th eleventh and twelfth ribs. On the left side the adhesions were numerous, firm,

well organized, and probably old;* on the right side there were a few similar adhesions and a number of more delicate and probably recent ones.

A mass of black, coagulated blood covered and concealed the spleen and left the margin of the greater omentum On raising the omentum it was found that this blood-mass extended through the left lumbar and iliac regions and dipped down into the pelvis, in which there was some clotted blood and rather more than a pint of bloody fluid.† The blood-coagula having been turned out and collected, measured very nearly a pint. It was now evident that secondary hæmorrhage had been the immediate cause of death, but the point from which the blood had escaped was not at once apparent.

The omentum was not adherent to the intestines, which were moderately distended with gas. No intestinal adhesions were found other than those between the transverse colon and the liver, already mentioned.

The abdominal cavity being now washed out as thoroughly as possible, a fruitless attempt was made to obtain some indication of the position of the bullet before making any further incision. By pushing the intestines aside, the extremity of the catheter, which had been passed into the wound, could be felt between the peritoneum and the right iliac fascia; but it had evidently doubled upon itself, and although a prolonged search was made, nothing could be seen or felt to indicate the presence of the bullet, either in that region or elsewhere.

The abdominal viscera were then carefully removed from the body, placed in a suitable vessel, and examined seriatim, with the following result:

The adhesions between the liver and the transverse colon proved to bound an *abscess-cavity* between the under surface of the liver, the transverse colon, and the transverse mesocolon, which involved the gall-bladder, and extended to about the same distance on each side of it, measuring six inches transversely and four inches from before backward. This cavity was lined by a thick pyogenic membrane, which completely replaced the capsule of that part of the under surface of the liver occupied by the abscess. It contained about two ounces of greenish-yellow fluid—a mixture of pus and biliary

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*These adhesions, and the firm ones on the right side, as well as those of the spleen, possibly date back to an attack of chronic dysentery from which the patient is said to have suffered during the civil war.

†A large part of this fluid had probably transuded from the injecting material of the embalmer.

matter. This abscess did not involve any portion of the substance of the liver except the surface with which it was in contact, and no communication could be detected between it and any part of the wound.

Some recent peritoneal adhesions existed between the upper surface of the right lobe of the liver and the diaphragm. The *Liver* was larger than normal, weighing eighty-four ounces; its substance was firm, but of a pale yellowish color on its surface and throughout the interior of the organ, from fatty degeneration. No evidence that it had been penetrated by the bullet could be found, nor were there any abscesses or infarctions in any part of its tissue.

The *Spleen* was connected to the diaphragm by firm, probably old peritoneal adhesions. There were several rather deep congenital fissures in its margins, giving it a lobulated appearance. It was abnormally large, weighing eighteen ounces; of a very dark, lake-red color, both on the surface and on section. Its parenchyma was soft and flabby, but contained no abscesses or infarctions.

There were some recent peritoneal adhesions between the posterior wall of the *Stomach* and the posterior abdominal parietes. With this exception no abnormities were discovered in the stomach or *Intestines*, nor were any other evidences of general or local peritonitis found besides those already specified.

The *Right kidney* weighed six ounces, the *Left kidney* seven. Just beneath the capsule of the left kidney, at about the middle of its convex border, there was a little abscess one-third of an inch in diameter; there were three small serous cysts on the convex border of the right kidney just beneath its capsule; in other respects the tissue of both kidneys was normal in appearance and in texture.

The *urinary bladder* was empty.

Behind the right kidney, after the removal of that organ from the body, the dilated *track of the bullet* was dissected into. It was found that from the point at which it had fractured the right eleventh rib (three inches and a half to the right of the vertebral spines) the missile had gone to the left, obliquely forwards, passing through the body of the first lumbar vertebra, and lodging in the adipose connective tissue immediately below the lower border of the pancreas, about two inches and a half to the left of the spinal column, and behind the peritoneum. It had become completely encysted.

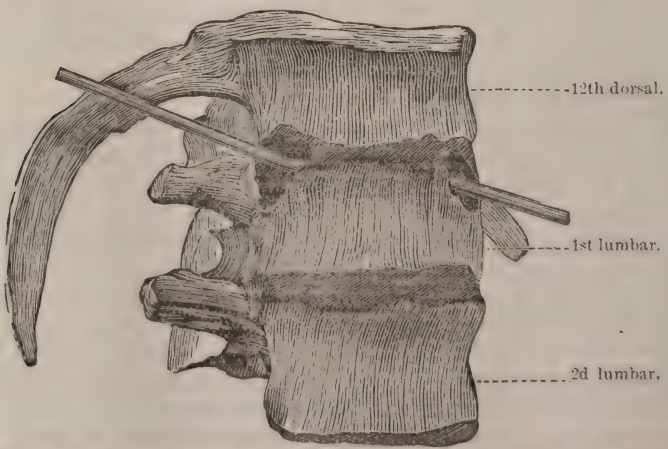
The track of the bullet between the point at which it had fractured the eleventh rib and that at which it entered the

first lumbar vertebra was considerably dilated, and the pus had burrowed downwards through the adipose tissue behind the right kidney, and thence had found its way between the peritoneum and right iliac fascia, making a descending channel which extended almost to the groin. The adipose tissue behind the kidney in the vicinity of this descending channel, was much thickened and condensed by inflammation. In the channel, which was found almost free from pus, lay the flexible catheter introduced into the wound at the commencement of the autopsy; its extremity was found, doubled upon itself, immediately beneath the peritoneum, reposing upon the iliac fascia, where the channel was dilated into a pouch of considerable size. This long-descending channel, now clearly seen to have been caused by the burrowing of pus from the wound, was supposed during life to have been the track of the bullet.

The last dorsal, together with the first and second lumbar vertebræ and the twelfth rib, were then removed from the body for more thorough examination.

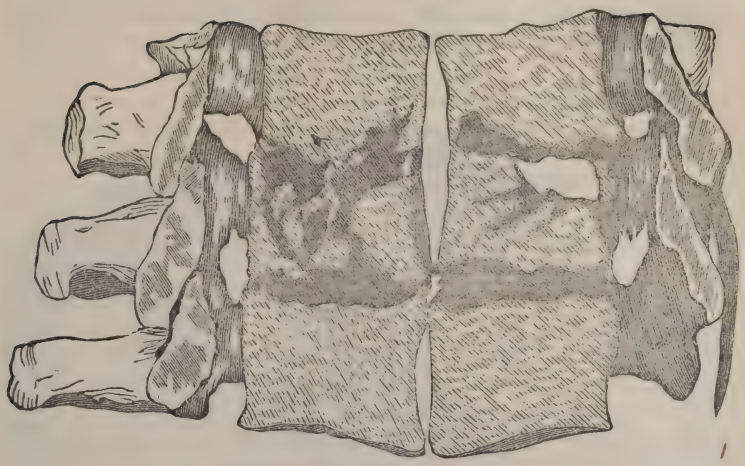
When this examination was made, it was found that the bullet had penetrated the first lumbar vertebra in the upper part of the right side of its body. The aperture by which it entered involved the intervertebral cartilage next above, and was situated just below and anterior to the intervertebral foramen, from which its upper margin was about one-quarter of an inch distant. Passing obliquely to the left and afterwards through the upper part of the body of the first lumbar vertebra, the bullet emerged by an aperture, the

FIG. 1.



Shows the course of the ball through the first lumbar vertebra, its direction being indicated by the probe.

FIG. 2.



Shows the above specimen sawn open.

centre of which was about half an inch to the left of the median line, and which also involved the intervertebral cartilage next above. The cancellated tissue of the body of the first lumbar vertebra was very much comminuted, and the fragments somewhat displaced. Several deep fissures extend from the track of the bullet into the lower part of the body of the twelfth dorsal vertebra. Others extended through the first lumbar vertebra into the intervertebral cartilage between it and the second lumbar vertebra. But this cartilage and that next above were partly destroyed by ulceration. A number of minute fragments from the fractured lumbar vertebra had been driven into the adjacent soft parts.

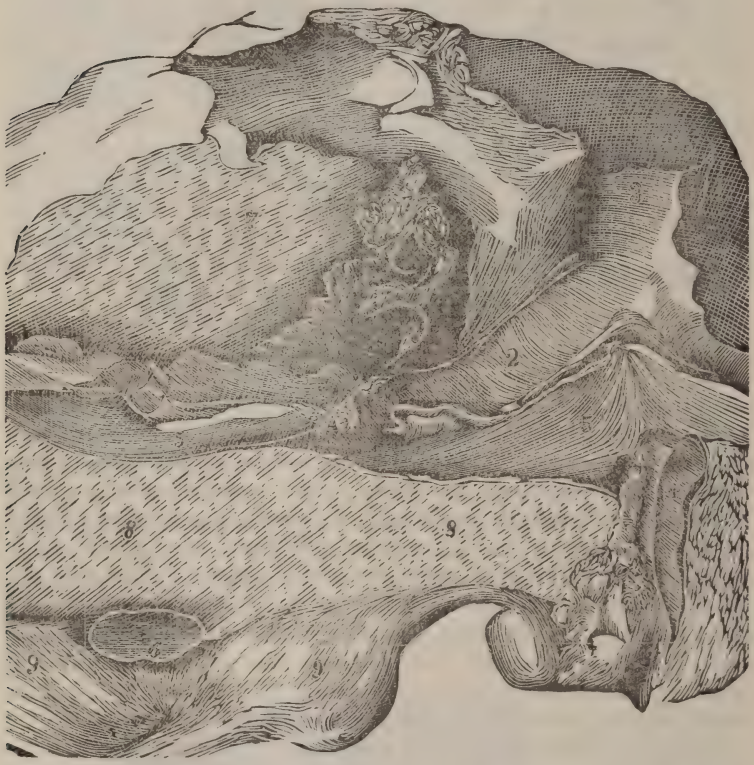
It was further found that the right twelfth rib also was fractured at a point one inch and a quarter to the right of the transverse process of the twelfth dorsal vertebra; this injury had not been recognized during life.

On sawing through the vertebra, a little to the right of the median line, it was found that the spinal canal was not involved by the track of the ball. The spinal cord and other contents of this portion of the spinal canal presented no abnormal appearances. The rest of the spinal cord was not examined.

Beyond the first lumbar vertebra the bullet continued to go to the left, passing behind the pancreas to the point where it was found. Here it was enveloped in a firm cyst of connective tissue, which contained besides the ball a minute

quantity of inspissated, somewhat cheesy pus, which formed a thin layer over a portion of the surface of the lead. There was also a black shred adherent to a part of the cyst-wall,

FIG. 3.



1. The point at which the splenic artery gave way. 2, 2. The splenic artery. 3. The cœliac axis. 4. The superior or mesenteric artery. 5, 5. The splenic vein. 6. The cyst in which the ball was found. 7, 7. A portion of the mass of extravasated blood. 8, 8. The pancreas. 9, 9. Adipose tissue behind the transverse meso-colon.

which proved on microscopical examination to be the remains of a blood-clot. For about an inch from this cyst the track of the ball behind the pancreas was completely obliterated by the healing process. Thence, as far backward as the body of the first lumbar vertebra, the track was filled with coagulated blood, which extended on the left into an irregular space rent in the adjoining adipose tissue behind the peritoneum and above the pancreas. The blood had worked its way to the left, bursting finally through the peri-

toneum behind the spleen into the abdominal cavity. The rending of the tissues by the extravasation of this blood was undoubtedly the cause of the paroxysms of pain which occurred a short time before death.

This mass of coagulated blood was of irregular form, and nearly as large as a man's fist. It could be distinctly seen from in front, through the peritoneum, after its site behind the greater curvature of the stomach had been exposed by the dissection of the greater omentum from the stomach, and especially after some delicate adhesions between the stomach and the part of the peritoneum covering the blood-mass had been broken down by the fingers. From the relations of the mass, as thus seen, it was believed that the hæmorrhage had proceeded from one of the mesenteric arteries; but as it was clear that a minute dissection would be required to determine the particular branch involved, it was agreed that the infiltrated tissues and the adjoining soft parts should be preserved for subsequent study.

On the examination and dissection made in accordance with this agreement, it was found that the fatal hæmorrhage proceeded from a rent, nearly four-tenths of an inch long in the main trunk of the splenic artery two inches and a half to the left of the cœliac axis. This rent must have occurred at least several days before death, since the everted edges in the slit in the vessel were united by firm adhesions to the surrounding connective tissue, thus forming an almost continuous wall bounding the adjoining portion of the blood-clot. Moreover, the peripheral portion of the clot in this vicinity was disposed in pretty firm concentric layers. It was further found that the cyst below the lower margin of the pancreas, in which the bullet was found, was situated three inches and a half to the left of the cœliac axis.

Besides the mass of coagulated blood just described, another, about the size of a walnut, was found in the greater omentum near the splenic extremity of the stomach. The communication, if any, between this and the larger hæmorrhagic mass could not be made out.

The examination of the *Thoracic Viscera* resulted as follows:

The *Heart* weighed eleven ounces. All the cavities were entirely empty except the right ventricle, in which a few shreds of soft, reddish, coagulated blood adhered to the internal surface. On the surface of the mitral valve there were several spots of fatty degeneration; with this exception, the cardiac valves were normal. The muscular tissue of the

heart was soft, and tore easily. A few spots of fatty degeneration existed in the lining membrane of the aorta just above the semilunar valves, and a slender clot of fibrin was found in the aorta, where it was divided, about two inches from these valves, for the removal of the heart.

On the right side slight pleuritic adhesions existed between the convex surface of the lower lobe of the lung and the costal pleura, and firm adhesions between the anterior edge of the lower lobe, the pericardium and the diaphragm. The *Right Lung* weighed thirty-two ounces. The posterior part of the fissure, between its upper and lower lobes, was congenitally incomplete. The lower lobe of the right lung was hypostatically congested, and considerable portions, especially towards its base, were the seat of broncho-pneumonia. The bronchial tubes contained a considerable quantity of stringy muco-pus; their mucous surface was reddened by catarrhal bronchitis. The lung-tissue was œdematous,* but contained no abscesses or infarctions.

On the left side the lower lobe of the lung was bound, behind to the costal pleura, above to the upper lobe, and below to the diaphragm by pretty firm pleuritic adhesions. The *Left Lung* weighed twenty-seven ounces. The condition of its bronchial tubes and of the lung-tissue was very nearly the same as on the right side, the chief difference being that the area of broncho-pneumonia in the lower lobe was much less extensive in the left lung than in the right. In the lateral part of the lower lobe of the left lung, and about an inch from its pleural surface, there was a group of four minute areas of gray hepatization, each about one-eighth of an inch in diameter. There were no infarctions, and no abscesses in any part of the lung-tissue.

The surgeons assisting at the autopsy were unanimously of the opinion, that on reviewing the history of the case in connection with the autopsy, it is quite evident that the different suppurating surfaces, and especially the fractured spongy tissue of the vertebra, furnish a sufficient explanation of the septic conditions which existed during life.

About an hour after the post-mortem examination was completed, the physicians named at the commencement of this report assembled for further consultation in an adjoining cottage. A brief outline of the results of the post-mortem examination was drawn up, signed by all the physicians, and

*A part at least of this condition was doubtless due to the extravasation of the injecting fluid used by the embalmer.

handed to Private Secretary J. Stanley Brown, who was requested to furnish copies to the newspaper press.

Signed, D. W. Bliss, J. K. Barnes, J. J. Woodward, Robert Reyburn, D. S. Lamb.

As the above report contains paragraphs detailing the observations made at Washington on the pathological specimens preserved for that purpose, the names of Drs. F. H. Hamilton, D. Hayes Agnew and A. H. Smith are not appended to it. It has, however, been submitted to them, and they have given their assent to the other portions of the report.

The Effects of Some Drugs in Lactation on Nurse or Nursling.* Thomas M. Dolan, F. R. C. S., ED., contributed a most valuable series of papers to the *Practitioner*, from which series we extract the papers published in the August and September (1881) numbers of that estimable journal:

Lactation, as I have pointed out, may be defective from mechanical causes, as non-development of the lactiferous tubes, or the cæcal termination of the ducts, or through nonperfection of epithelium, conditions which preclude treatment. It may also be defective from a plethoric state of body, a condition strictly amenable to treatment. A carefully regulated diet, avoidance of stimulants, with milk as a leading article, plain but nutritious food, and the occasional administration of castor oil, will soon remove the obstruction.

One of the commonest causes of defective lactation is due to anæmia. In a large number of such cases suckling must not be thought of, but there are some cases where suckling is necessary, the anæmic condition being overcome by a liberal dietary, and by the use of some preparation of iron.

Torpor of the mammæ is also assigned as a cause. When the secretory apparatus is inactive much benefit may be derived from the application of the electric current, applied several times daily in succession, for fifteen to twenty minutes. Irritation of the nipple, warm poultices, the breast pump, and some of the so-called galactagogues are also useful in this state.

I have tested some of the popular drugs for which a milk secreting character has been claimed, with what result will be seen in alphabetical order, along with other medicines which were employed for the purpose of noting their action on nurse or nursling.

* These admirable papers were sent to America in competition for the Boylston prize. This valuable prize would have been awarded to them, but most unfortunately the publication of a part of them in the *Practitioner*, previous to the award, deprived the author of the prize.—ED. *Practitioner*.

I have given in some cases the methods and tests employed, so that my observations may be checked by any one who repeats my experiments.

I may say that there is some difficulty in carrying on observations with drugs during lactation, and some degree of danger, not to the child or mother, but to the practitioner, so that I would advise all observers to wean the child, in every case when the medicine is given for experimental purposes. The danger is of the following nature:—

If you give an innocent medicine and the child have infantile convulsions, you might be accused of causing the child's death on the *post hoc* principle. For instance, two children died of infantile convulsions to whose mothers I intended giving some medicine. I did not do so. Had I carried out my intention I have no doubt the mothers would have blamed me. By observing the precaution about weaning the child, this danger will be avoided.

Aconitum Napellus, Aconite.—Mary H. was admitted to my Lock ward suffering from gonorrhœa. Her child was transferred to the nursery, and as she complained of neuralgic pains in the head, I availed myself of the opportunity of using monkshood. As many of our officinal preparations are inert, owing to faulty preparation, adulteration, or too long keeping, I obtained a pure and sound sample of the tincture from Corbyn, Stacey & Co., London. I administered two minims every half hour till she had taken twelve minims, and then drew off some of her milk. The relief of the neuralgia was effective. The following is the result of the analysis:

Aconite.—The milk was very gently warmed for some time with dilute sulphuric acid, and filtered. The filtrate was evaporated to a small bulk at a moderate temperature, made alkaline with ammonia, shaken up with benzol and filtered. The residue left on evaporating the benzol did not give the reactions for aconite.

In two other observations no trace was found in milk. Though from the small dose usually administered it has not been found in milk, yet I would impress the necessity of caution in administering this drug to mothers who are nursing.

Anisi, Aqua et Oleum.—Anise (Pimpinella Anisum) is said to promote the secretion of milk in nurses (Neligan, Action of Medicines, p. 463). I have found it useless, though it flavors the milk and children seem to like it. We have here probably an explanation of the use of warm aromatic medicines.

When the child sucks the nipple becomes turgid and erect, and the gland is stimulated. If a child be eager for the breast through liking the mik, it would be presumed that the secretion would be increased; in some cases such a result would follow, as for instance, when lactation was defective through torpor of the mammæ, hence galactagogue properties were assigned to such innocent medicines as dill and aniseed. Both these medicines belong to the Umbelliferæ. I think a large number of this family produce an effect on milk, imparting to it a distinct flavor and odor, and as hemlock (conium) belongs to this class this fact becomes important.

Anethi, Aqui et Oleum.—Dill (Anethum graveolens) has been recommended as a galactagogue (Tanner). From my experience it is perfectly useless. Administered to six women, no effect whatever on lactation resulted, though an aromatic flavor was imparted to the secretion.

The children took the breast with avidity. It may be given to a mother whose child is troubled with flatulent colic after sucking.

Allium Sativum.—I administered garlic to three women, not with any hope of increasing secretion, but in order to see whether the family of Liliacæ acted on, or were taken up by the secretory apparatus of the mammæ. The milk was speedily tainted and the children would not take the breast.

Arsenic.—As this is a medicine frequently given, and as arsenical saturation may occur, it is highly important to know whether it is present in the milk. Availing myself of several persons suffering from cutaneous diseases, chiefly of a syphilitic nature, I administered it under the form of Liquor arsenicalis. I may premise that the children were in all cases weaned, and the secretion maintained by artificial suction, and the milk thrown away.

I administered Liquor arsenicalis to Mary H. in five minim doses three times a day for six weeks. She was suffering from obstinate chronic eczema, with a syphilitic taint. There was not the slightest symptom of arsenical saturation.

Combined with improved diet there was a decided improvement at the end of six weeks.

Taylor says that arsenic is not an accumulative poison, but that it is carried into the circulation by absorption; and that is an important question regarding its medicinal use, whether its elimination in the living body takes place with the same rapidity as its absorption. Hunt (*On the Skin*, 1847, p. 11) considers that arsenic used medicinally does not accumulate in

the body. We have evidence that the poison is thrown out of the body by the kidneys, as Taylor found it on analysis in the urine of a boy who had been taking one-eighth of a grain per day.

Arsenic (analysis).—The milk was mixed with common salt, ferrous sulphate and sulphuric acid in a retort, to the beak of which a tube was attached, dipping beneath the surface of water in a flask. The ferrous salt was used to reduce any arsenic acid that might be present, as recently recommended by E. Fischer. After distilling the contents of the retort nearly to dryness, sulphuretted hydrogen was passed through the liquid in the flask. A yellow precipitate was produced; this was collected on a filter, and washed free from acid. A warm solution of ammonium bicarbonate was poured over the precipitate on the filter; hydrochloric acid added to the filtrate gave a yellow precipitate. This on being washed, dried, and heated in a tube, with access of air, gave a characteristic deposit of chrystals of arsenious oxide on the cool parts of the tube. A blank experiment with the materials used gave no precipitate with sulphuretted hydrogen. The experiments, therefore, show that arsenic had passed into the milk.

Ammoniæ Carbonas, etc.—The preparations of ammonia are mildly stimulant. Through their action on the vaso-motor system the circulation is improved and the secretions generally increased. Having such a general action I tried them in order to test their local action on the mammary gland; and as ammonia is found in the blood, to see whether it could likewise be found in the milk. It readily enters the blood, increasing its alkaline reaction, and owing to its high diffusive power escapes very readily through the body in different ways, a portion passing off into the breath, some with the sweat, and much with the urine.

In two cases where I gave the carbonate and the acetate of ammonia in moderately large and continued doses, I found as regards the carbonate that it entered into the milk, and as regards the acetate that it acted as a diaphoretic.

Administered in half-drachm doses every two hours, perspiration was copious, produced after third dose. The secretion of milk was rendered more plentiful, breasts more distended.

On drawing off 20 c.c. of milk I found that it was thin, poor and watery, so that, somewhat like jaborandi, this drug increased the water in the milk without improving the quality.

This patient had not a plentiful supply of milk, and on the day after taking the medicine the quantity secreted was not more than usual.

Belladonnæ Succus (Deadly nightshade).—I selected this drug, not only as an example of the solanaceæ, but in order to test its reported anti-galactagogue properties. We are told that belladonna has very little effect on horses, rabbits, pigeons, asses, in fact, on all true vegetable feeders, whilst it is a powerful poison to flesh-eaters. Ringer has established its power in arresting the secretion of milk, whether used in the form of liniment, extract, or ointment (a drachm of the tincture to an ounce of olive oil). He tells us that if the milk cannot be drawn off artificially, the secretion may be suppressed, which can be easily effected by belladonna. It should be applied early, before inflammation has set in, and then in a few hours the swollen, painful breast gradually diminishes and soon becomes soft, comfortable, and painless. But should this early stage have passed by and inflammation have set in, and the breasts become tense, shiny, hard, knotty, red, and exquisitely painful, the continuous application of belladonna for twenty-four or forty-eight hours, will even under these adverse circumstances often remove the tension and inflammation, and arrest impending abscess. The rapid manner in which it affords relief in these cases will greatly astonish any one unaccustomed to its use, in fact it is impossible to over-rate the usefulness of this drug. I can testify to the accuracy of this description, having tried it in a large number of cases with most beneficial results. Its local action may be explained by presuming that it paralyses the secreting nerves of the mammary glands, as it certainly does in the salivary glands. Administered by the mouth belladonna is no doubt taken up by the blood, evidenced by well-known symptoms.

Is it to be found in the milk when prescribed for other reasons than the arrest of milk? Is it dangerous to the child?

Obs. I.—Twenty minims of the succus belladonnæ given to a mother who was suckling, for the relief of neuralgia; dose repeated every four hours. After the third dose 8 c c. milk drawn off. No trace could be found in milk.

Obs. II.—Thirty minims of the succus administered to a woman for tic doloureux; dose repeated every four hours. Great relief afforded after second dose. Severe pain in the head produced, with slight singing in the ears. Quantity of milk unaffected, with no trace on examination. In these two cases, no doubt, the belladonna had been eliminated by the kidneys. Other observations necessary.

Copaiba.—I very seldom give copaiba in practice, and in gonorrhœa in the female always resort to injections. I departed, however, from my usual routine in order to test this drug.

I gave Mary H—— the well-known but distasteful mixture of balsam, improperly so called, and liquor potassæ: in four hours there was evidence that it had passed into the urine, proved by the smell, by nitric acid and ether. As it might be presumed that by this time it had entered into the circulation, I drew off 12 c.c. of milk, and submitted it to the following tests:—

1. Odor; milk distinctly impregnated with odor of copaiba.
2. Under the microscope, globules larger and coarser.
3. Tested with nitric acid.

Effect on child. Infant would not touch the breast. Some of the milk drawn off and administered to a child two years of age. Urine of this child examined half an hour after taking it; distinct traces of copaiba found in it.

Chloral. Hydrate of.—Chloral is now so frequently used in connection with parturition, and is such a well known remedy for puerperal convulsions, that it is a most important medicine in connection with my subject. As regards its action Liebreich believes that the alkali of the blood decomposes hydrate of chloral, forming chloroform, and that the properties of chloral are due to the chloroform slowly formed in the blood.

Dr. Amory concludes from his experiments that chloral hydrate does not decompose in the blood, and that its effects are consequently not due to chloroform. He could not detect chloroform in the blood and excreta (breath, &c.) of animals poisoned with chloral; this substance was easily detected in animals poisoned with chloroform, in the blood and excreta.

Dr. Fothergill has pointed out the effects of chloral on the general vascular system, and its calming influence on the arterioles of the skin. We know that it is cumulative, and hence some of the sudden deaths from its use. So that if it be given as recommended by some accoucheurs it may affect the lacteal secretion.

Ringer tells us E. Lambert recommends chloral in parturition in fifteen-grain doses every quarter of an hour till the patient falls asleep; and he states that this treatment does not weaken the uterine contractions, while the patient is prevented suffering pain, and is ensured calm repose after delivery.

Dr. Playfair thinks that chloral acts far better than chloroform inhalation, as chloral does not lessen the contraction, while it greatly lessens the pain. Moreover, it is chiefly applicable at a period when chloroform cannot be used, that is towards the termination of the first stage, before the complete dilatation of the os. The patient falls into a drowsy state, a sort of semi-sleep. Dr. Playfair gives fifteen grains, and repeats the dose in about twenty minutes, leaving its subsequent administration to circumstances.

Obs. I.—Fifteen grains of chloral given to a patient every four hours before confinement, until seventy-five grains had been taken. Labor slow, tedious, terminated naturally. No trace on third day in milk. I believe that chloral does have an effect on milk, though when given before labor it is eliminated before the third day.

Chloral.—The milk was distilled with caustic soda in a retort connected with a Liebig's condenser. Chloral giving chloroform by treatment with alkalies, the distillate was examined for that substance. The liquid was water free from milkiness, and had not the slightest odor or taste of chloroform. Chloral would therefore appear not to pass into the milk. It should, however, be remarked, that the quantity of milk operated on was small, about 5 c.c.

It is well to bear in mind that milk is sometimes present before labor, or the day after confinement, so that if large doses of chloral are given during labor in such cases, the child might suffer by being put to the breast.

Calabar Bean.—Dr. Monro (*British Med. Jour.*, Oct. 1876), wishing to restore the secretion of milk after it had disappeared from the breast for about three days, thought the dilating power of calabar bean might be made useful. He accordingly applied an ointment of the strength of twenty grains to the ounce, and washed it off carefully before the baby was allowed to suckle. After two applications, the baby not having been put to the breast meanwhile, the milk returned in full flow. I obtained a preparation made of the same strength as that used by Dr. Monro, but my results do not agree with those of Dr. Monro, as the effect was nil.

In *British Med. Journal*, Dec. 11, 1880, a writer, "Sceptic," states that he used this ointment without any beneficial result.

Cod-Liver Oil Fats.—The necessity of heat-forming products in milk in order to supply fuel for the infant has been previously pointed out. In my analyses are some examples wherein fat was deficient, and where consequently the milk

did not supply the adequate aliment for the children. In order to improve the quality of the milk, I administered cod-liver oil to both these women in doses of one tablespoonful three times daily, in a cupful of warm milk. No effect was produced on quantity or quality of the milk. The children took the milk in the usual way, and I did not notice any physiological action upon them.

The dairy-farmer who desires to obtain a rich supply of butter, feeds his cattle on oil-cake, mixing it with other food, so that by analogy it might be presumed that a carbonaceous diet would be of advantage to mothers whose milk was deficient in fats. I therefore employed linseed tea, beef and mutton fats, in order to note their effects. Ordinary mutton, beef, and pork fats are composed almost exclusively of the glycerides of the fixed fatty acids, such as the stearic palmitic, and oleic acids, and after they have been acted on by the bile, pancreatic and other essential fluids in the intestines, a portion of the fats becomes absorbed. In this case a fat diet increased quantity of fat in milk. In two cases no effect was produced.

Castor Oil.—The effects of castor oil in the nursing state are well known. In plethora, when the secretion is deficient, it is most useful; and the leaves of the plant will be found of great benefit applied as a cataplasm. I have repeatedly given castor oil to mothers, and have invariably found that it exercised a purgative action on the child. The mother's milk possessing the taste and flavor of castor oil.

Cuminum Cyminum. Common Cumin.—Dr. Barbasti, France (*Lancet*, 1872), states that he has frequently made use of the above as a galactagogue with the very best results, and that the peasant women of Dauphiné employ it for that purpose. Messrs. Corbyn, Stacy & Co. sent me some of the seeds, or rather fruits, of which I made a decoction and tried it on two or three patients without any milk-increasing results. This herb is, however, seldom used in human medicine, though it is employed by farmers for the treatment of cows, whose condition it is supposed to improve. The fruit tastes warm, bitter and aromatic, and is not so agreeable as anise. Owing to its aromatic properties it is doubtless used by the good peasants of Dauphiné, but as a galactagogue it may be considered valueless. This is the last of the aromatic plants I tried, as I believe that I may formulate the law that they all impart a flavor and odor to human milk, without increasing the quantity or improving the quality of the secretion.

Conium, Hemlock.—Most of the Umbelliferæ are readily absorbed by the lacteal vessels, and may be easily found in the milk. Conium, from its sedative action and its influence on the nerves of motion, could not be expected to increase the milk supply. There are reasons, however, for its administration to mothers who are nursing, so that it is important to note how soon, if at all, it appears in the milk, and what dose produces an effect. Conium, praised by Störck for the cure of uterine scirrhus, and by Dr. Tunstall for chronic inflammation of the womb, is an excellent sedative for back-ache and for the sexual organs. It must be given until its physiological effects are produced, and this means a dose of the succus conii B.P. of two or three drachms.

I administered two drachm doses of the succus conii every three hours to Helen W—— until she had taken twelve drachms. I then drew off 8 c.c. of milk; analysis as follows:

Conine.—Treated as for quinine, with sulphuric acid and benzol. The benzol on evaporation gave a slight residue free from odor, and not producing crystals on addition of hydrochloric acid. Conine would, therefore, appear to be absent from the milk.

Digitalis purpurea, Purple Foxglove.—As a rule, digitalis lowers vascular activity and blood pressure, though there are occasions when it has an opposite effect. It is well called a cardiac tonic, as it regulates the heart-beats, producing rhythmic contractions in place of disordered and irregular action. As the latter state may exist during lactation, its administration may sometimes be deemed advisable. In three cases I administered infusion of digitalis in half-ounce doses every six hours, but could not detect any evidence of it in the milk. This is doubtless owing to its being so speedily eliminated by the kidneys.

Ergotin.—The effect of Ergotin on fœtal life is well known. Its influence on the milk has not been noted. I gave twelve grains to a private patient, one month after confinement, owing to a slight attack of hæmorrhage, in doses of two grains every three hours; the effect was satisfactory. The mother told me that she believed the pills, though small, had affected her milk, as her child was cross and seemed to suffer from pain, and would not take the breast. She said she would not take any more medicine. She allowed me to draw off some of her milk, which was submitted to the following test:

Ergot of Rye.—The milk was distilled with caustic soda, and the distillate tested for trimethylamine, but none was

found. This does not prove its absence, but simply that, as stated by Blyth, "the tests for ergot must be much more definite than they are at present, before a search for the *absorbed* drug can be successful."

Galega-officinalis.—Dr. Oppinger (*Lancet*, 1872) recommends the use of galega-officinalis as both exciting the secretion and improving the quality of the milk. He administered it in the form of a syrup, by tablespoonfuls, twice daily. Though not a Pharmacopœal preparation, I obtained a sample. My observations do not correspond with those of Dr. Oppinger; in my cases it produced no effect on secretion, either in quality or quantity, nor had it any effect on the children.

Iodide of Potassium.—Simon states that he could not detect this in milk, and Meymott Tidy (London Hospital Reports, 1867) admits a similar failure; Herberger found it. My own observations accord with those of the latter, and I employed it for two reasons. First, to see whether it did enter into the milk, and, secondly, to observe its action as an anti-lactescent, for which purpose Dr. F. H. Morris, Cheltenham, recommends it. He says (*Lancet*, vol. ii., 1874), "that in three-grain doses every three hours it is better than belladonna."

Emma Cooper. History given in previous section. I gave her fifteen grains of iodide of potassium every three hours. After she had taken sixty grains I drew off 6 c.c. of milk and tested it. No alteration as regards quantity of secretion. I continued the iodide for some days in smaller doses, five grains, but still there was no decrease in quantity of secretion. So that my observations do not confirm those of Dr. F. H. Morris, but I believe its prolonged use deteriorates the milk by impoverishing the blood.

I drew off 20 c.c. of this woman's milk, on the third day of her taking the iodide, and gave it to a child aged eighteen months. The child's urine was collected and examined; slight traces of the drug found.

Potassium Iodide.—Added starch solution to milk, then a drop of weak bleaching powder solution on the end of a glass rod. A blue coloration was produced which was not permanent. The same result occurred on adding a second drop. Iodine was evidently present, but the milk destroyed the blue color of the iodide of starch. On adding a little iodide of potassium and starch to milk, free from iodine, it was found that the blue coloration, produced by the bleaching powder solution, was similarly fugitive.

Mercury.—An Irish student was once asked how he would salivate a child three months old, and he replied that he would give mercury to a she-goat and allow the child to drink the milk.

Mercury undoubtedly finds its way into the blood, and as Headland says (*Actions of Medicine*, p. 38), by some inscrutable chemical power, of whose nature we know nothing, it is able to decompose the blood; by some destructive agency it deprives it of one-third of its fibrin, one-seventh of its albumen, one-sixth or more of its globules, and at the same time loads it with fœtid matter, the product of decomposition. Mercury has been found in milk. (Gallier, *Toxicologie Générale*, 1855.)

Obs. I.—Mary W., private patient, aged twenty-five, gave five grains of blue pill at bed-time followed by a purgative draught in the morning Aperient action produced. No effect on milk. No trace of drug could be found in it.

Obs. II.—Rebecca G., syphilitic private patient, gave grey powder in doses of one grain, every six hours for three days; slight purgative effect produced with marked fœtor of the breath without sponginess of the gums. Presuming that the mercury had evidently entered the circulation, I drew off 12 c.c. of milk. Mercury could not be detected. This investigation is incomplete.

Opium.—I have had several opportunities of noticing the effects of laudanum on mother and child. When the dose is large the narcotic principle can be detected in milk, but in small doses no trace can be found.

I had a patient, Mrs. H., a lady in good position, who was in the habit of taking the tincture for sleeplessness, her usual dose being twenty to thirty minims. As she was suckling, I asked her whether she had noticed any effect on the child; she answered, yes. When the child was fed it slept the whole night without disturbing her. Her infant was pallid and listless. She sent me some of her milk after taking her usual quantity of the tincture. Odor slightly altered. Responded to test for morphia.

Phosphorus.—Taylor tells us that this poison is absorbed and diffused through the body; this is established by the luminosity of the viscera, which has been frequently observed. Vauquelin, after having exposed himself to the vapor of phosphorus, observed that the urine which he passed was phosphorescent; and M. Chevallier states, on the authority of a phosphorus manufacturer, that on many occasions the men who were employed in his establishment, and

who were in the habit of breathing phosphorus vapor, passed phosphorescent urine. I gave two patients Kirby's phsphorus pills in doses $\frac{1}{50}$ grain three times a day, for fourteen days, and could not find any trace either in milk or urine.

Potash, preparations of:—1, Solution of Potash; 2, Carbonate and Bicarbonate of Potash; 3, Citrate of Potash; 4, Acetate of Potash; 5, Nitrate of Potash.

In an article in the *Practitioner*, April, 1880, on the management of infantile eczema, Dr. L. Duncan Bulkley says: "In nursing infants I generally give the mother acetate of potash, fifteen grains or so, three times daily, after eating, with nux vomica and a bitter infusion. I do not know if it passes through the milk in any way, but it certainly benefits the child very much." Which of the medicines benefits the child—the potash, the nux vomica, or the bitter infusion? Doubtless the effect is produced by an improvement in the condition of the mother, with the result of a better supply of milk. As potash salts exist abundantly in milk, it has been suggested that the administration of these salts may promote the secretion of it.

I have been in the habit of prescribing bicarbonate and citrate of potash for nursing mothers for years, but I have never noticed any direct or positive effect on the production of milk.

If prescribed with a tonic, as nux vomica or gentian, in cases of loss of appetite, loss of tone, severe dyspepsia, the milk will no doubt be benefited as the result of a better assimilation of food. The sustained administration of the potash salts renders the blood poorer in solids and red corpuscles, and impairs the nutrition of the body.

I gave two women 15 grains of bicarbonate of potash, simply dissolved in water, for seven days. It had no effect on the quantity or quality of the milk secreted, but there was a marked influence on the children as regards the quantity of urine secreted. I have tried some of the other preparations of potash without any result.

I would direct attention to some observations in the *Brit. Med. Jour.*, 1877, Oct. 13, Vol. II., p. 513, "On the Action of Chlorate of Potash on Fœtal Life."

Quinine.—Quinine readily passes into the blood, and probably very little is decomposed in the body, as it can be detected in the urine and sweat of healthy and fever patients. It is almost exclusively eliminated by the urine, most of it being secreted in six hours. It has been found in the blood.

As quinine is one of the best tonics we possess, it is given

therefore in all states of the system where debility is present, so is much used when mothers are nursing, and it becomes important to note its effect on mother and child.

Obs. I.:—Small doses, 3 grains every hour, were given to Alice W. After 12 grains had been taken, 8 c.c. of milk was drawn off, but no trace could be found, though it was found in the urine. The child did not object to take the breast. No doubt only a small quantity was taken up by the blood as the dose was small, the largest quantity being eliminated by the kidneys. The milk was warmed with a little sulphuric acid and filtered. The filtrate was made alkaline with ammonia, and shaken with benzol. The benzol on separating was removed and evaporated, very little residue remained; this had no bitter taste, and gave no green coloration with chlorine-water and ammonia.

Rhubarb (Rheum Palmatum).—All the Polygonaceæ are not so readily absorbed as this drug. It is almost exceptional as regards the ease with which it can be found in the urine, sweat, in the serum of the blood, and in the milk. It colors the secretions, owing to the presence in it of chrysophanic acid. As a purgative for women and children it is well known. It acts physiologically on the infant through the agency of the mother's milk, which it renders slightly bitter and at the same time purgative.

Obs. I.:—Mary B., aged 30, multipara, nursing a child aged 8 months. I prescribed the following mixture:—℞. Pulv. rhei., gr. xx.; Sodæ bicarb., gr. xx.; Spt. myristicæ ♏ xxx.; Syr. zingib., ʒj.; Aquæ menth pip. ad ʒjss. Nocte sumend. A purgative effect produced. Milk drawn off and tested in the morning. Child affected by the milk, active purgation produced. The milk was shaken up with ether, and allowed to stand. The ethereal layer, which was of a yellow color, was drawn off, and caustic soda added, when the yellow color changed to red, showing that the chrysophanic acid of the rhubarb had passed into the milk.

Senna:—Neligan tells us that the cathartic principle of senna is absorbed before its operation is produced, as is proved by the action on the intestines when an infusion is injected into the veins; and also by its imparting a purgative property to the milk of nurses.

I have frequently employed it as a purgative for nursing mothers, and have invariably found that the milk affected the infant—in many cases producing colic.

The peculiar flavor of the senna and the odor were distinctly perceptible, though it does not lessen or increase the secretion of milk.

Scammonium.—This gum resin is obtained from one of the natural family of the Convolvulaceæ. No drug is more generally adulterated than scammony. I obtained a very pure sample from my chemists. As it forms a fine uniform emulsion with unskimmed milk, I was desirous of knowing whether it was taken up by the mammary vessels.

Obs. I.:—Five grains given to a woman—purgative effect. No trace in milk, no effect on child.

Obs. II.:—Seven grains of scammony and 2½ oz. unskimmed milk made into an emulsion and given to a nursing mother. Purgative effect; milk unaltered, child unaffected.

Sulphur (Sulphide of Calcium):—In the Institution with which I am connected I have but too frequent occasion to use sulphur in some of its forms for the treatment of scabies. My favorite preparation for the cure of this disease is the sulphide of calcium, made, as its name implies, from lime and sulphur.

The following formula is used: Flowers of sulphur, 100 parts; Quicklime, 200 parts; Water, 1,000 parts. Boil the whole for some time, allow the liquid to cool, and decant into hermetically sealed bottles. It is sold by chemists in the form of a bright yellow solution, and hence it is popularly called "Golden Lotion." Before applying it my patients are ordered a warm bath, so as to cleanse the body and excite healthy skin action; they are then painted with the solution and placed in bed in blankets. Next morning they present a peculiar appearance, as, owing to the deposit of the sulphur, they are the color of a guinea. The beneficial results are soon manifest. The itching soon ceases, the vesicles shrivel up, and after another warm bath the patient may be discharged, cured.

This preparation thus used does not produce any effect on milk, nor have I ever been able to detect it in the secretion.

I have given the confection of senna and the flowers of sulphur, and have invariably found it in the milk, sweat, and urine. It affects the child as a mild purgative, through the milk, and may be detected in the infant's fæces.

Turpentine, Oleum terebinthinæ.—This medicine is obtained from the natural family Coniferæ. It is rapidly absorbed into the blood, and as quickly passes out, principally by the lungs and kidneys, imparting to the urine a peculiar violet color.

I have only been able to administer it once to a patient suffering from hæmorrhage from the kidneys, making use of the following prescription, fifteen drops of which were given on a lump of sugar every quarter of an hour:

℞. Olei terebinthinæ .....5j.
Mucilaginis.....5v.
Misturæ amygdalæ.....
Aquæ laurocerasi.....$\overline{aa}$ 5ss

Effect on Mother.—After second dose there was a marked sensation of warmth in stomach and bowels. After three quarters of an hour there was a desire to urinate. The urine exhaled an odor somewhat like the smell of violets. As it evidently had entered the blood, I drew off 12 c.c. of milk. A strong odor was perceptible. The milk was not otherwise altered, and when the child was put to the breast it sucked with avidity.

The effect of the turpentine was noticed in the infant's urine.

Valerian.—In hysteria, and the various conditions depending thereon in women, valerian was much more commonly used than it is at present. It belongs to the natural family Valerianaceæ. It has a perceptible odor, and like all medicines possessing strong flavors, as jatamansi or musk root, it may readily be detected in the secretions.

Volatile Oils.—This group includes, according to Ringer: Nutmegs, cloves, canella bark, cinnamon bark, cajeput oil, oil of anise, fennel fruit, caraway fruit, coriander fruit, dill fruit, benzoin, oil of peppermint, oil of spearmint, oil of rue, oil of lemons, cubebs, buchu flowers, balsam of tolu, balsam of Peru, copaiba, elder flowers, lavender oil, oil of rosemary, mezereon, sassafras, thorax, juniper.

From this group I selected aniseed, dill, copaiba; and my observations point to the conclusion that they all readily enter the milk, in which they may be detected, and that the child is influenced by them. I have explained the reason why aromatic warm drugs were supposed to possess galactagogue properties. From these data we may reasonably conclude that all the medicines included in the above group produce an effect on the mammary secretion; some observer might take medicines I have not tried, and thus confirm or disprove my belief. Life is too short for one to quarter all the field; as I have blazed the tree, I leave farther research to others.

The Opium Habit.—The *New York Medical Journal and Obstetrical Review* for October, 1881, contains an article by Dr. Edward C. Mann, of New York, on the nature and treatment of the opium habit. After giving an account of the extent to which the practice of opium-eating is indulged in,

and attempting an explanation of the ways in which the drug enslaves its victims, the author states that the opium or morphine habit is a curable disease, as other diseases are, and that he only desires to know that an opium sufferer honestly desires a cure to assure him that this result can be accomplished. If the opium habit is not eradicated, provided the physician has the moral support of the patient in desiring a cure, it is because the treatment is at fault in some respect. Primarily, the patient must put himself under the necessary control. The nervous system of most of our modern Americans is too delicate, Dr. Mann thinks, to bear the shock of a total deprivation of the opium at once. Grave nervous disorders follow such a course. In his own plan of treatment he employs a reductionary course, keeping the patient's nervous system quiet with a combination of the bromides, gradually *increasing* the bromides as he *decreases* the morphia, until, on the tenth day after admission, the patient is taking *no* opium or morphine, and has avoided all suffering and nervous prostration. He generally combines the bromides of ammonium and sodium, and eliminates them from the system, after stopping the opium, by warm baths, sweet spirits of nitre and digitalis. The reflex action of the spinal cord, which has purposely been kept depressed by the bromides during the reductionary treatment, is now excited by strychnia, and the central nervous system is stimulated and invigorated by the daily use of the induced or faradic current of electricity employed as general faradization. Nerve tonics are also employed, and an emaciated patient generally gains in a month's time from twenty-five to thirty pounds of flesh; his shattered constitution is built up, and in from four to six weeks he is generally well enough to be discharged, and to resume his position in society, entirely free from all craving for opium or morphia. Nothing but a thorough, systematic course of treatment can restore such patients to health, as there is no greater delusion than the belief in any specific to counteract the effect of opium or morphine in the human system and to eradicate the craving for the narcotic; and with such thorough, systematic treatment success is certain and invariable. An interesting case is given of an army officer who had been addicted to the use of opium for thirty-five years. He was fifty-three years of age. At the age of thirteen he went to China, and from there to India, where he discovered by experiment the fascination of the drug when eaten, and commenced the habit as a luxury. He was in the British army in India for twelve years, during which time

he continued the habit until, in the year 1856, he had reached the amount of 200 grains daily. Previous to this time he had repeatedly endeavored to break off from the habit, but each time succumbed to the intolerable suffering which he experienced. He applied at this time for treatment to a physician, who failed to eradicate the habit or even to quiet the craving for opium. He therefore continued to take this dose of 200 grains of opium daily, although he felt convinced that it was impairing his mental faculties very markedly. The will power had become so enfeebled that the morbid impulse or craving impelled him irresistibly, regardless of all consequences. He served through the Mexican war, and also through the late civil war. During the progress of the war, feeling that his memory was failing rapidly, and that his physical health was being undermined, he reduced his daily allowance to 125 grains of opium per diem. He was so fearful of being taken prisoner, and thus losing his opium, that he carried about his person a small pistol, determined in the event of his capture to commit suicide rather than undergo the torture which the sudden deprivation of his stimulus would cause. At the close of the war he commenced to take chloral as soon as he heard of its effect, hoping that he would be enabled to leave off opium. This, however, he did not do, but, continuing the opium habit, and the chloral in addition, soon reached the amount of half an ounce, or 240 grains daily. Upon his admission to Sunnyside he was on the verge of insanity, emaciated, feeble, pale and anæmic, with a feeble gait, no appreciation of his condition or surroundings, hallucinations of sight and hearing, and delusions of fear and persecutions. As he was much excited, several doses of a combination of sodium bromide and cannabis indica were administered, also chloral and hyoscyamus, and toward morning he became quiet. The next morning he was partially aware of his condition, but excited, with rapidly changing delusions and hallucinations; he was given beef tea and milk in small quantities at short intervals. A bitemporal current from four cells of the galvanic battery was applied for some minutes twice in the day, with the effect of calming the excitement, and the same medicines were continued internally. The following night he slept a few hours; on the third day of treatment there was marked improvement. The bowels, which had been obstinately constipated for a long time, were opened by enemata containing turpentine, and the intense restlessness and the delusions disappeared. From this time he was totally deprived of his

chloral, and the morphine was gradually withdrawn; and after the withdrawal of the morphine the stimulating and tonic effects of electricity to the central nervous system, and the use of phosphorus, strychnia and cod-liver oil as nerve tonics and nutrients, soon accomplished a complete cure.

The Use of Quebracho in Dyspnœa.—Dr. Andrew H. Smith, chairman of the Committee on Restoratives of the Therapeutical Society of New York, has submitted on behalf of the committee a report, founded on clinical data, on the use of quebracho in dyspnœa, which is published in the "New York Medical Journal and Obstetrical Review" for September, 1881. Of the thirty-two cases covered by the report, eleven were of spasmodic asthma, with or without emphysema and bronchitis. Of these, in nine cases the dyspnœa was notably relieved. In two cases of asthma associated with bronchitis no benefit resulted. One patient with emphysema and bronchitis without asthma was relieved. One with bronchitis with obesity was not relieved. Two with mitral insufficiency were not relieved. One with mitral stenosis was not relieved. One with hypertrophy with dilatation was not relieved. In two cases of cardiac disease (form not stated) the dyspnœa was relieved. In one case of fatty heart there was slight relief. Two patients with dyspnœa depending upon Bright's disease, in one of whom pulmonary œdema was noted, were relieved. In one case of aortic aneurism the dyspnœa was relieved till near the close. In one case of tonsillitis the dyspnœa, partly nervous, was relieved. In one case of cancer of the lung dyspnœa was relieved. In two cases of pneumonia it was relieved. One patient with hysterical dyspnœa was relieved. In one case of catarrhal phthisis, second stage, the dyspnœa was relieved. In one case of catarrhal phthisis, third stage, it was not relieved. In one case of intermittent fever with old pleurisy, the patient being an opium-eater, the dyspnœa was increased. Thus of the thirty-two cases of different diseases in which dyspnœa formed a prominent feature, this symptom was relieved to a greater or less extent to twnety-one; not relieved in ten; aggravated in one. In some instances the treatment was not pushed far enough to give a decisive result. It is possible that the nausea observed in some cases might have been avoided by the use of smaller doses, and perhaps a favorable result obtained. The fact that dyspnœa depending upon such a variety of causes may be relieved by quebracho points, says the writer, to the respiratory center as the seat of its action. Apparently it blunts the sense of want

of air, and thus mitigates the suffering from a deficient supply. But this action is not necessarily only palliative. Exaggerated respiratory efforts are often in themselves an evil, not only on account of the muscular effort expended, but from the aspiration of blood into the thoracic viscera, which results especially when the dyspnœa is caused by narrowing of the air-passages rather than by solidification or compression of the lung. Hence in many cases an agent which will moderate the violence of the respiratory movements will not only lessen the distress of the sufferer, but will increase the chances of his recovery. That quebracho will often very promptly fulfill this indication there seems to be no room to doubt, while as yet there is no evidence that it is liable to produce unfavorable after-effects. The extremely disagreeable taste of the medicine and its tendency to produce nausea are, however, serious drawbacks to its use by the mouth. As yet, we have no record of its employment by the rectum. If the active principle is isolated, so that it can be used hypodermically, a great advantage will have been obtained.

Aphasia.—Ferrier defines aphasia as follows: "The subject of aphasia is deprived of the faculty of articulate speech, and also very generally of the faculty of expressing his thoughts in writing, while he continues intelligently to comprehend the meaning of words spoken to him, or it may be to appreciate the meaning of written language. An aphasic individual knows perfectly well, as exhibited by his gestures, if a thing is called by its right name or not, but he cannot utter the word himself or write it when it is suggested to him. In his attempts, only an automatic or interjectional expression, or some unintelligible jargon escapes his lips, or unmeaning scrawls are set down on paper as writing. This affection is usually, at first at least, associated with a greater or less degree of right hemiplegia, but the motor affection of the right side, chiefly of the right arm, is often slight and transient, or may be wanting from the first, the only indication of motor paralysis being a paretic or weak condition of the oral muscles of the right side. The inability to speak is not due to paralysis of the muscles of articulation, for these are set in motion and employed for purposes of mastication and deglutition by the aphasic individual. The cause of the affection was shown by Broca (and his observations have been confirmed by thousands of cases) to be associated with disease in the region of the posterior extremity of the third left frontal convolution, where it abuts on the fissure of Syl-

vius and overlaps the island of Reil." "One of the most common causes of the affection is softening of this region, consequent on sudden stoppage of the circulation by embolic plugging of the arterial channels which convey its blood supply, by which the functional activity of the part is temporarily or permanently suspended." "The rapid recovery which so frequently occurs in cases of aphasia, especially of the kind due to embolic plugging of the nutrient arteries of the left centres, is not so much to be regarded as an indication of the education of the right centres, but rather of the re-establishment of the circulation and nutrition in parts only temporarily rendered functionless."—*Boston Medical Journal.*

Book Notices, &c.

The Practice of Medicine and Surgery Applied to the Diseases and Accidents Incident to Women. By W. H. BYFORD, A. M., M. D., Professor of Gynæcology in Rush Medical College, and of Obstetrics in the Woman's Medical College, Chicago, Ill.; President of the American Gynæcological Society, etc. Third Edition; with 164 Illustrations. Philadelphia: Lindsay & Blakiston. 1881. 8vo. Pp. 682.

The last or second edition of this work, which has been for several years out of print, was issued in 1869, and by reason of the rapid progress of gynæcology in the last decade, so many changes were necessary in the present edition that practically it is a new book, new subjects and chapters having been introduced and the old ones rewritten. The omission of puerperal diseases and diseases of the breast has enabled the author, however, to compress the work in about the same size as the last edition. Before reviewing its contents, we may say that the mechanical execution of this book, its illustrations, etc., are excellent, as is sufficiently guaranteed by the name of its publishers. The book is divided into forty-six chapters, but our limited space will allow only a brief enumeration of the subject matter treated therein.

Chapters I. and II. Diseases and Accidents of the Labia and Perineum.

Chapter III. Diseases of the Vulva.

Chapter IV. Diseases of the Bladder.

The above named chapters are clear and practical, due

importance being given to the rupture of the perineum, its prevention and the operations for its cure.

Chapter V. Affections of the Vagina. In this chapter the author urges the necessity of constant care and attention in the treatment of puerperal vaginitis, and states that fifty per cent. of the vesico-vaginal fistulæ which now occur might be avoided by following the simple rules of treatment given. The various operations for the cure of urinary fistulæ are given in detail, and their understanding facilitated by numerous illustrations.

Chapters VI. to XI. inclusive, treat of the following subjects: Menstruation and its Disorders; Amenorrhœa; Menorrhagia and Metrorrhagia; Dysmenorrhœa; Metatithmenia, or misplaced menstruation and periuterine hæmatocele; Change of Life—menopause and senility; Acute Inflammation of the Unimpregnated Uterus.

Chapters XII. to XVI. embrace the general consideration of uterine disease, symptoms, pathology, etiology and diagnosis. This subject is treated in a thorough and exhaustive manner. It gives the student a clear conception of the relative value to be attached to sympathetic and local symptoms, and teaches him the instruments required in diagnosis and the mode and manner of using them.

Chapters XVII. and XVIII. General and special treatment of uterine disease. The indications requiring general treatment, so frequently overlooked, are here clearly stated, and their importance pointed out. The special treatment embraces baths, injections, manner of using them, local treatment, etc. With reference to local treatment the author points out the great value of glycerin as a means of relieving inflammation and congestion, but its utter uselessness as a lubricant or solvent for local applications. To dissolve medicine in it and then apply it to the cervix, he states is to insure the rapid removal of the medicine by a current of serum poured out from the surface. For this reason absorption from a glycerin solution, applied to the vaginal surface, is simply impossible. This will be a revelation to a large number of practitioners who are in the habit of using glycerin as a solvent for tannin, iron, iodine, etc.

Chapter XIX. Lacerations of the cervix uteri. While the author gives due prominence to this subject, he evidently does not share the enthusiasm of many of the young and enterprising disciples of Emmett who would call every ulceration a laceration of the cervix and at once proceed to operate.

Chapter XX. Occasional untoward effects of uterine manipulations and operations.

Chapter XXI. Hypertrophy of the cervix.

Chapters XXII. and XXIII. Perimetritis and Chronic Perimetritis. The author uses the term perimetritis to signify inflammation of the tissues surrounding the uterus, and includes both cellulitis and local peritonitis under this head.

Chapters XXIV. to XXVII. Displacements of the vagina, bladder, rectum and the uterus. After pointing out the natural uterine supports, the causes of displacements, symptoms and diagnosis, the author proceeds to the treatment of displacements of the uterus, and by ample illustrations and a clear exposition of the principles underlying all treatment, renders this subject both instructive and interesting.

Chapter XXIX. Diseased deviations of involution of the uterus. The author states his opinion that more of the chronic congestions of the uterus originate in puerperal and menstrual subinvolution than in any other one condition. Prominence is therefore given to preventive treatment, and he urges that the most assiduous attention should be especially given to control all inflammations that follow labor, and to devote more attention and care in conducting patients through cases of abortion and premature labor than is usually done.

Chapters XXX. to XXXII. Cancer, Epithelioma and Sarcoma of the Uterus. With reference to the use of Chian turpentine in cancer of the uterus, the author writes that it is as yet a problem for the future to arrest the progress of cancerous deposit by medicine, and on the other hand whether true cancer of the uterus can be cured by any kind of surgical operation, still remains to be proven.

Chapters XXXIII. to XXXV. Fibrous Tumors of the Uterus. These chapters are of great practical value, the author having, as is well-known, made this subject a special study for years. After describing the nature of fibroid tumors, the symptoms, diagnosis and prognosis, their treatment is considered at length. Regarding the use of ergot, the author arrives at the following conclusions based upon a collection of 136 cases so treated: 1. When properly administered, ergot frequently very greatly ameliorates some of the troublesome and even dangerous symptoms of fibrous tumors of the uterus, *e. g.*, hæmorrhage and copious leucorrhœa. 2. It often arrests their growth and checks hæmorrhage. 3. In many instances it causes the absorption of the tumor, occasionally without giving the patient any inconvenience; at other times

the removal of the tumor by absorption is attended by painful contractions and tenderness of the uterus. 4. By inducing uterine contractions it causes the expulsion of the polypoid variety. 5. In the same way it causes the disruption and discharge of the sub-mucous tumor. While the author disclaims any expectation that ergot will supplant other modes of treatment, he does claim, however, that the judicious gynæcologist will lose fewer patients and make more cures by the consistent administration of this medicine than can be looked for from surgery. The surgical treatment of these tumors embraces torsion, amputation, enucleation, laparotomy, laparo-hysterotomy and oöphorectomy.

Chapters XXXVI. to XLIII. The Affections of the Ovaries; Ovarian Tumors; Ovariotomy. Having already exceeded the space assigned for this review, we are reluctantly compelled to content ourselves with a brief reference only to the personal statistics of the author in relation to ovariotomy. He believes in antiseptic surgery, and states that before commencing the use of the antiseptic spray and dressing, his successes, taking the whole together, did not exceed sixty-six per cent. Since adopting antiseptic measures, the au-author has had the more than gratifying result of eighty six per cent. of recoveries. While the author is, of course, unable to assert positively whether the improved conditions under which he is now operating may not have favored this result, or how much may be due to increased skill acquired from experience in operating, he is convinced that the vapor and fluid containing carbolic acid when used so as to shut out the atmospheric air from the abdominal wound, adds greatly to our means of avoiding many of the untoward conditions sometimes experienced after ovariotomy.

The concluding *Chapters* XLIV. to XLVI. deal respectively with the diseases of the fallopian tubes, coccygodynia, and the uses of electricity in the treatment of diseases of women.

In considering this work as a whole we are impressed with its conservatism, which is manifested in every chapter, betokening the mature judgment of one who has devoted almost a lifetime as a teacher of the special branch of medicine of which this work treats. Although incorporating the investigations and views of others, there remains a marked individuality throughout. Fully convinced of the genuine merits of this work, we take pleasure in recommending it to every student and physician desirous of obtaining a standard work on gynæcology, written in a progressive and yet a con-

servative spirit, a guide to the student, as well as a counsellor to the physician, fully abreast of the times and an honor to American Gynæcology. D.

Supplement to Ziemssen's Cyclopædia of the Practice of Medicine. Edited by GEORGE L. PEABODY, M. D., Instructor in Pathology and Practice of Medicine, College of Physicians and Surgeons, etc. New York: William Wood & Co. 8vo. Pp. 844–VIII. (For sale by Messrs. West, Johnston & Co., Richmond.)

As the title indicates, this *Supplement* has been prepared to fill up the omissions and make corrections in the former volumes of this truly great work—*Ziemssen's Cyclopædia.* All the authors of the articles in the *Supplement* are United States practitioners—the object of such a corps of authors being to make the work more valuable to the American profession. Of the twenty-eight authors thus selected to make revisions and annotations, ten are from Boston, eleven from New York city, one from Ithica, N. Y., one from Philadelphia, one from Cincinnati, three from Chicago, and one from the U. S. Army. It must be that some of these authors have only a local reputation, since there are at least two or three that we have never heard of before their present authorship was published. But notwithstanding this, we find that all the authors selected are men of merit; and as the *Supplement* is now presented, we find the *Cyclopædia* to be as perfect a work on the "Practice of Medicine" as it is possible to expect any such volumes to be. We regret that want of space does not allow of a fuller description of the volume now before us, but without this volume the work is incomplete.

Indigestion and Biliousness. By J. MILNER FOTHERGILL, M. D., M. R. C. P., Lond., etc. New York: William Wood & Co. 1881. 12mo. Pp. 320—viii. (For sale by Messrs. West, Johnston & Co., Richmond.)

The eminence of Dr. Fothergill as a practical medical author at once entitles this book to a high consideration. It is written from a physiological standpoint. The author claims a greater importance for his subject in that he thinks "disturbances of the digestion are terribly on the increase in the present day." The subjects of indigestion and biliousness are here specially considered in their causative relations to gout in its protean aspects, although no special chapter is devoted to a study of gout. While it is not mentioned to be

a part of the plan of the author to write a book on this latter subject, still it is evident that he intends such a work to follow. We are glad to see the author advocates the judicious use of mercury in many of the forms of biliousness—a practice which must have the advocacy of those who look upon experience and observation as worthy of remembrance. It is a capital book for the practitioner of medicine.

The Wilderness Cure. By MARC COOK, Author of "Camp Lou." New York: William Wood & Co. 1881. 12mo. Pp. 153. (For sale by Messrs. West, Johnston & Co., Richmond.)

The author, although not a physician, contributed to *Harper's Magazine*, May, 1881, an article on "Camp Lou," recommending camp life for the treatment of consumptive diseases—he himself having been cured thereby. So many inquiries as to details having been made of the author that he has written this book, giving all the details essential for the patient who undertakes this "Wilderness Cure" plan of treatment. The book has evidently been thoroughly revised by some competent physician; for the recommendations are in keeping with the advanced professional views of the day. We would cordially recommend this work to the practitioner for his perusal as well as to the patient for his guide. It reads like a novel, although every statement has the authority of personal experience.

Cyclopædia of the Practice of Medicine. Edited by DR. H. VON ZIEMSSEN. Vol. IX. *Diseases of the Liver and Portal Vein, with the Chapter Relating to Interstitial Pneumonia.* New York: Wm. Wood & Co. 1880. 8vo. Pp. viii–928. (For sale by Messrs. West, Johnston & Co., Richmond.)

The manuscript preparation of this volume was not finished in time to be issued in regular order of serial publication of this immensely valuable work, which has been so ably edited for Messrs. Wood & Co., by Dr. Albert H. Buck, of New York city. The translations have been well made; and some of the Germanisms introduced in some of the former volumes which made them clumsy reading, have been avoided in this volume. Prof. Ponfick, of Rostock, is the author of the Anatomico-Physiological Introduction and the section on Jaundice; Prof. Thierfelder, of Rostock, contributes the chapter on Physical Dsagnosis, Hyperæmia of the Liver, etc.; Prof. Von Schueppel, of Tuebingen, has written up Cancer of the Liver, Amyloid Degeneration, Fatty Liver, Pigment

Liver, Diseases of the Biliary Passages and Portal Vein; Prof. Leichtenstern, of Tuebingen, gives the Clinical Aspects of Cancer of the Liver; Prof. Heller, of Kiel, writes on Parasites of the Liver; and Prof. Juergensen devotes a chapter to Interstitial Pneumonia. Each of these authors have been faithful to their respective trusts in the careful preparation of the several chapters named; and the volume as now presented is of great value to practitioners.

Manual for the Physiological Laboratory. By VINCENT HARRIS, M. D., (Lond.) M. R. C. P., Demonstrator of Physiology at, and Casualty Physician to, St. Bartholomew's Hospital, etc., and D'Arcy Power, B. A., Oxon., Assistant Demonstrator of Physiology at St. Bartholomew's Hospital, etc. New York: Wm. Wood & Co. 1881. 12mo. Pp. 124. (For sale by Messrs. West, Johnston & Co., Richmond.)

This book will be found a very serviceable "manual" for working directions in the physiological and histological laboratory It contains an account of the histology and chemistry of the various organs of the human body, together with a description of the methods which should be employed in the preparation of the tissues for the microscope. This work admirably supplements the excellent manuals of Foster and Langley, Schafer and Rutherford. Many of the histological descriptions have been compiled from the works of Klein, Frey, Ranvier, Stricker, etc.

The Prescriber's Memoranda. New York: Wm. Wood & Co. 1881. 24mo. Pp. 301. (For sale by Messrs. West, Johnston & Co., Richmond.)

These "memoranda" are simply compilations from the records of prominent practitioners of surgery, medicine, midwifery, etc. The diseases for which prescriptions are given are arranged alphabetically from the first page to the last page of the book—thus rendering an index unnecessary. The collection of such useful "memoranda" in one pocket-book will prove of service to many practitioners hastily called to prescribe for patients. The book is neatly issued. The editor's name is not given.

Compend of Anatomy. By JOHN B. ROBERTS, A. M., M. D., Lecturer on Anatomy and on Operative Surgery in Philadelphia School of Anatomy, etc. Second Edition, Revised. Philadelphia: C. C. Roberts & Co. 1881. 12mo. Pp. 198. Price, $1.25. (From Publishers.)

This little book is designed for use in the dissecting room and in preparing for examinations. It is of use, too, to

carry about in the doctor's buggy for frequent reference as to anatomical points. When one is called out hurriedly to a case of injury, or is called upon to perform an operation when he has not the time to consult his larger books, how he wishes he had his exact anatomical knowledge assisted by a consultant. This book is good for these things and for other purposes. It, as a rule, follows the plan of Gray's great work.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice; but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Lecture on the Causes and Treatment of Syphilis. By EDWARD N. FISHBLATT, M. D., New York, N. Y. 8vo. Pp. 36. (A good exposition of present views.)

Notes on Hospital and Private Practice. By HENRY GIBBONS, Sr., M. D., San Francisco, Cal. From *Trans. Cal. State Med. Soc.*, 1878–9. 8vo. Pp. 14. (Full of practical, ripe experience.)

Objective Aural Sounds Produced by Voluntary Contraction of the Tubal Muscles. By SWAN M. BURNETT, M. D., Washington, D. C. 8vo. Pp. 3.

Examination of the Usual Signs of Dislocation of the Hip. Also an Inquiry into the Proper Mode of Procedure wken Dislocation of the Hip is Accompanied with Fracture of the Femur. By OSCAR H. ALLIS, M. D., Philadelphia, Pa. 8vo. Pp. 23. From *Trans. Med. Soc. State of Pa.*, 1879. (Full of practical suggestions and deductions.)

Urethrismus, or Chronic Spasmodic Stricture. By F. N. OTIS, M. D., New York, N. Y. From *Hospital Gazette*, April 19, 1879. 8vo. Pp. 22.

Priority of the Anæsthetic Use of the Bromide of Ethyl. By R. J. LEVIS, M. D., Philadelphia, Pa. From *Phila. Med. Times*, Feb. 14, 1880. 8vo. Pp. 4.

Case of Triplets. By HIRAM H. DAW, M. D., Hearne, Texas. 8vo. Pp. 2.

Cases of Epileptiform Convulsions Successfully Treated by Hypodermic Injections of Sulphate of Atropia By THOMAS LEGARE, M. D., Charleston, S. C. 8vo. Pp. 3.

Excision of the Rectum for Malignant Disease. By N. SENN, M. D., Milwaukee, Wis. From *Interna. Jour. Med. and Surgery.* 8vo. Pp. 16. (A valuable contribution in view of the few reports on the subject.)

Quality of Mental Operations Debased by the Use of Alcohol.

By T. L. Wright, M. D., Bellefontaine, Ohio. From *Alien. and Neural.*, July, 1881. 8vo. Pp. 13.

Statistical Report 252 Cases of Inebriety. By Lewis D. Mason, M. D., Fort Hamilton, L. I. From *Quar. Jour. Inebriety*, April, 1881. 8vo. Pp. 25. (Very instructive.)

Responsibility Restricted by Insane Delusion. By T. L. Wright, M. D., Bellefontaine, Ohio. *Cincinnati Med. News*, Nov., 1879. 8vo. Pp. 16. (This, like his other paper above, is a forcible one.)

Editorial.

International Commission to Determine Visual and Color-Blind Tests.—At the Centennial Meeting of the Massachusetts Medical Society, June 8, 1881, the following preamble and vote were unanimously adopted: "Whereas, a petition has been presented to Congress asking for the calling of an international commission to consider and agree upon standard methods of testing visual acuteness and color-blindness, and standard requirements of these necessary qualifications in the navies and merchant marines: Voted, that the Massachusetts Medical Society heartily approves of the proposed internalionat commission and hereby directs the Secretary of the Society transmit this vote to Congress when next assembled."

The suggestion above made is a good one; and it would do well for the Medical Society of Virginia to take some favorable action in regard to the subject. Other State Societies should also lend their help. We can accomplish but little without an effort.

Powell's Beef, Cod Liver Oil and Pepsin is manufactured by the Powell Manufacturing Co., of Baltimore, Md. The components of this remedy are expressed in the name, this at once commands for it the attention of medical men. A happy and useful idea it was of the Powell Company to combine into such a palatable and elegant preparation the wonderful tonic, nutritive and digestive properties of Beef, Cod Liver Oil and Pepsin. This combination cannot help being, as claimed for it, *i. e.*, a reliable and palatable tonic and nutritive medicine. We are informed by the proprietors that the remedy is meeting with an unusually large sale for its short introduction, and that many leading practitioners are recommending it in the highest terms. This combination is an advancement in pharmaceutical science, and will, doubtless, be very successful.—*New Remedies.*

Albany College of Pharmacy.—A new Department of Union University, N. Y., will begin the first Monday of October, 1881, and the first session will close about March 1st, 1882. The Faculty will consist of Jacob S. Mosher, M. D., Professor of Botany and Materia Medica; Willis G. Tucker, M. D., Professor of Chemistry, and Gustavus Michaels, Professor of Pharmacy. For further information or circular address the Secretary, Dr Willis G. Tucker, 4 Lancaster Street, Albany, N. Y.

Prize Essay.—The committee of selection appointed by the chairman of the section on Practical Medicine, Materia Medica and Physiology, at the recent meeting of the American Medical Association, have selected, and hereby announce, as the subject for the prize to be awarded in 1883, the following question: *What are the special modes of action, or therapeutic effect upon the human system, of water, quinia, and salicylic acid, when used as anti-pyretics in the treatment of disease?* The essays must be founded on original experimental and clinical observations, and must be presented to the chairman of the committee of *award* on or before the first day of January 1883. N. S. Davis, H. D. Holton, W. B. Ulrich, Committee of Selection.

American Institute of Micrology.—Dr Ephraim Cutter, 246 West Fourth Street, New York City, Principal, has established such a school as that indicated by the above title. The course consists of twenty lectures of one each, and is intended for *Physicians* who wish to obtain some *idea* of the subject of Micrology, so that they may pursue the study further without a tutor. The text-books will be the *Micrographic Dictionary*, and the *Primer of the Clinical Microscope*, by Dr Cutter. The course is approved by Dr Salisbury and others. Students may begin at any time. Terms on application to above address of Dr Cutter.

Vaccine Virus Agency.—We are informed by Mr. T. Roberts Baker, Pharmacist, and successor to Meade & Baker, 919 Main street, Richmond, Va., that he has secured the exclusive agency in the States of Virginia and North Carolina for the sale of the vaccine virus prepared by the New England Vaccine Company. Experience has proved that this vaccine is the most reliable on the market. This information will be valuable to many practitioners, especially in this section just now, when there is such an unusual demand

for virus on account of the recent cases of small-pox in this city as well as in other cities and towns of the State.

Elixir of the Hypophosphites Lime and Soda.—This pleasant and elegant preparation, manufactured by Mr. R. H. M. Harrison, Pharmacist, of this city, at No. 4 east Broad street, representing the most important of nerve, bone and muscle tonics, we take great pleasure in recommending to the profession. It is a perfect and permanent solution of the Hypophosphite lime and soda with glycerine as its base, representing two-and-a-half grains of the combined salts to the fluid drachm. It can be used to advantage in all tubercular, scrofula and alien troubles, especially when combined with cod-liver oil. We have known Mr. Harrison, personally, for several years, and our endorsement is unqualified as to his integrity and carefulness in preparing his goods.

Dr. Richard Gundry, Medical Superintendent of the Spring Grove Insane Asylum, near Baltimore, Md., has been elected as the successor of Dr. E. Lloyd Howard, deceased, as Professor of Materia Medica and Therapeutics and Mental Diseases in the College of Physicians and Surgeons, of the city of Baltimore. The established eminence of Dr. Gundry in the profession, makes his selection as professor a happy one for the College.

The New York Medical Abstract.—There appear constantly, in the medical journals of this country and England, a large number of valuable articles by some of the most eminent members of the profession, the length of which precludes their extensive republication; hence, they are lost to the majority of physicians, who cannot afford the time necessary for a perusal of the many journals through which they are scattered. The purpose of the *Abstract* is to condense these and place them within easy reach. The language of the originals is retained in every case, and full credit given, so that the original may be consulted if necessary. Under the heading of "*Notes and Titles*" are given the titles of such articles of interest as are not selected—the whole forming a very complete view of the current medical literature of England and America. In selecting, preference is given to articles of *practical* value. Illustrations are given whenever they are contained in the original; thus far, during the present year, upwards of seventy-five illustrations have appeared in the columns of this journal.

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RICHMOND, NOVEMBER, 1881.

Original Communications.

ART. I.—**A Clinical Study of Fifty Cases of Ear Disease.** By JAMES L. MINOR, M. D., Surgeon to St. Joseph's Industrial Home, N. Y.

St. Joseph's Industrial Home is an orphan asylum containing about seven hundred and fifty inmates, out of which I have collected fifty cases of ear disease. Of these there were forty-two girls and eight boys. Fifteen were under five years of age, twenty-five were under ten, and the remainder (ten) were under twelve. Of the diseases, forty-two cases were chronic, suppurative inflammation of the middle ear; four were cases of impacted wax, with chronic aural catarrh; three were chronic aural catarrh, and one was eczema of the auricle. Out of the forty-two cases of otorrhœa, both ears were affected in thirty-two; the right in four, and the left in six—giving a total of seventy-four tympana in a state of chronic suppurative inflammation. The drums were perforated in all instances. In sixty-three cases the perforations were large. The remainder (eleven) were of medium size. Twenty-nine cases were cured, with entire reproduction of the drums and restoration of good hearing. Eleven ears

were cured of the inflammation, without entire reformation of the drum. The remaining cases are at this time in various stages of improvement. The length of time that the cured cases received treatment was, in thirteen cases, less than six months; in five cases, less than one year; in eleven cases, less than two years; and in five cases, less than three years.

Measles and scarlatina were the most frequent sources of the ear disease, though in many instances no histories could be obtained. Catarrh of the naso-pharyngeal mucous membrane was an almost constant accompaniment: and feeble health was by no means infrequent.

I shall only refer to the treatment of the cases of otorrhœa. The agent in the treatment of these cases that I finally settled upon, was *boracic acid*. The ears were first thoroughly cleansed, by syringing with a warm, saturated solution of boracic acid; they were then mopped out until dry, with absorbent cotton, and some of the finely-powdered acid dropped through a quill into the meatus. I usually endeavored to fill the meatus about one-fourth full. The syringing was repeated sufficiently often to keep the ears clean. The powder, when the discharge was abundant, was, for convenience, used only once a day, but might have been advantageously employed after each syringing.

For the nasal catarrh, I used pretty much the same treatment that was adopted for the ears. The nose was cleansed by a spray of the acid solution; after which the powdered acid was either blown or snuffed into the nostrils. This method of treatment was decided upon after a conscientious trial of the various other remedies in vogue; and the result so far surpasses that attained in my previous experience, or in that of others whom I have observed, that I do not hesitate to recommend, with various other observers, boracic acid as being decidedly the best agent for the treatment of otorrhœa that we are familiar with.

Boracic acid is not an irritant to inflamed surfaces. Its action, as I have observed it on inflamed mucous membranes and granulations, may be divided into two stages: The first gives rise to a sensation of slight warmth and moderate

stimulation, and is associated with an abundant serous discharge from the succulent tissues. This gradually merges into the second stage, which is one of ease and relief, and is accompanied by a marked reduction in volume of the inflamed tissues. The diminution in size is evidently due to the depurative action of the acid on the swollen tissues during the first stage, and is especially noticeable in succulent polypoid growths with a purulent discharge (granulation). I have frequently observed the granulations to shrink and disappear entirely under its influence, where removal by the snare and cauterization with nitrate of silver or nitric acid seemed to stimulate them to increased growth. The first stage lasts from one to six hours, and the second from six to forty-eight hours.

The paucity of males in this report is due to the large proportion of girls in the institution. The large number of cases under ten years of age, is to be attributed to the fact that few inmates beyond that age are retained in the Institution.

The overwhelming majority of cases of otorrhœa was to have been suspected, not only as being the most frequent form of ear disease in childhood, but because the growth of such individuals prevents them from calling attention to less visible disorders. The cases of chronic aural catarrh were well marked. They were associated with naso-pharyngeal catarrh, and I should refer to this as their cause, rather than to suppose hereditary transmission. The otorrhœa was usually bilateral, which would point to a place of common origin (the throat). Whether its slightly greater frequency in the left ear was merely a coincidence, or due to a greater susceptibility of that side, is simply conjectural. The perforations were most frequently located in the postero-inferior portion of the drum. The perforations were considered large when as much as one-fourth of the drum was destroyed, and those cases presenting entire absence of the drum were embraced under the same head. In all cases, the mucous membrane lining the tympanum was thickened and indurated, and granulations were frequently present, usually springing from the tympanic cavity. The percentage of cures is

made to appear small, because the cases just received and placed under treatment, were included with those who had been longer under observation. I began the use of boracic acid a little more than a year ago. And it is well to observe that these little patients were largely composed of the street waifs of New York, whose condition had never been properly attended to, and hence they were an easy prey to physical as well as to moral depravity—all of which makes them the most unpromising class of cases for treatment that can be found. The naso-pharyngeal catarrh was a serious complication, and furnished further evidence of the generally bad condition in which these children were found. The hearing restored is described as good. It could not be measured accurately.

To those familiar with the obstinacy of chronic suppurative inflammation of the middle ear, in such subjects, the results here given will appear favorable; while to those who know less of the affection, and are inclined to think lightly of it, this report will serve to unbias and to impress with the fact that there are few diseases in the range of surgery more obstinate. And there are none which are liable to lead to more serious results than otorrhœa in some instances does.

Among the cases treated were three, of more than usual interest, which are related below:

Case I.—*Necrosis of the Temporal Bone.* A little girl, three years old, who had suffered from otorrhœa for a year, had measles during the latter part of last April. She was much reduced by the attack, and seemed to suffer a good deal about the head, though nothing could be discovered to account for it. There was a moderate amount of purulent discharge from the ear (the left), and a perforation about three mm. in diameter occupied the postero-inferior quadrant of the drum. This was the condition on May 1st. I saw her again on the 7th, when the entire drum had disappeared, leaving the ossicles exposed and in position, with partial paralysis (paresis) of the left facial nerve. No mastoid complication could be discovered, and nothing could be found to account for the increasing severity of the symptoms. The ossicles passed away during the following week, and the inner third of the meatus became swollen and ulcerated, while granulations sprang from its surface, as also from the

walls of the tympanum. These granulations sprang from denuded bone. Treatment had not the slightest effect in staying the process of disease. About the 20th of May, a lump the size of an English pea, containing bone, was brought away by syringing. I did not see this, but suppose it was a part of the bony meatus with adherent granulation tissue, for I removed a mass, said by the nurse to be similar, about the 1st of July, and found it to contain a thin plate of bone, the greatest breadth of which was about eight mm., curved upon itself so as to form one-half of the circumference of the bony meatus. A month later a piece of bone of the same description, but of smaller dimensions, was removed. These pieces of bone represented the pars tympanus of the temporal bone, which forms the lower and anterior walls of the bony meatus and tympanum. The progress of the case did not change. The paresis of the seventh nerve, the pain and granulations in, and discharge from, the ear continued to make life a burden to the little patient as well as those around her. I removed the most prominent granulations, and used no stronger applications than was furnished by boracic acid.

On the 13th of August the cochlea was removed from the external meatus, where it had become lodged. The deeper part of the meatus was filled with granulations, which I treated tentatively, as they caused no trouble, and I wished to avoid instrumental manipulation of tissues in such close proximity to the brain. Improvement in both local and general symptoms at once commenced. The discharge diminished. The granulations assumed a healthy character, and, growing, closed the meatus. On August 27th the closure was complete, the granulations having assumed an epithelial covering; and the child was entirely cured of all her troubles except paresis of the seventh nerve, which will probably be permanent. She is of course deaf in the left ear.

Case II.—*Stenosis of the External Auditory Canal.* A boy, two years old, with an obstinate otorrhœa, defied all treatment, because the inflammatory induration and thickening had reduced the caliber of the meatus to that of a tube not more than two mm. in diameter. This was a barrier to either cleansing or the application of remedies; and the efficacy of laminaria tents in dilating the canal, was tested. They were allowed to remain in the canal six or eight hours. I used them four or five times, at intervals of a week. They were very painful, and I am not sure that they were free

from danger. The first effect was an aggravation of the symptoms. This was followed by improvement, both in inflammatory symptoms and in enlargement of the diameter of the canal, which allowed thorough cleansing and the proper application of remedies.

CASE III.—*Symptoms of Menière's Disease.* A boy, aged six, was suddenly taken with pain in the left side of the head, with dizziness and inability to walk or stand, falling always to the left side in attempting to do either. Nothing was found to account for the trouble, and I was requested to examine the ear. I found the lower part of the meatus blocked with polypi. These were removed, and immediately partial relief was experienced, which resulted in a permanent cure of the head symptoms in less than a week.

Clinical Reports.

A Successful Operation of Gastrotomy for Intussusception.

By HARRY B. ESTILL, M. D., Tazewell C. H., Va.

On the 3d day of October, 1881, Oscar Holly—a strong, robust, muscular man—was suddenly seized with a severe abdominal pain, of a griping or spasmodic character, referred to the neighborhood of the umbilicus. My father, Dr. J. M. Estill, was immediately summoned, who exhausted all the known remedies for mechanical obstruction of the bowels, viz: catharsis, copious enemata, opium, etc., without result. He continued to treat the patient upon general principles, until Saturday morning—five days after his attack began—when, according to previous arrangements, he started for the meeting of the Medical Association of Virginia at Old Point Comfort, and I, who had been absent in the meantime, saw him, at 2 o'clock on Saturday morning, for the first time. I found him with coldness of the skin, prostration, distressed countenance, persistent constipation, constant vomiting entirely of a stercoraceous character, abdomen tender and very tympanitic, with a slight tumor, dull upon percussion, immediately to the left of the umbilicus. From these symptoms, and the history of the case, I diagnosed intussusception or invagination, and decided that an operation was the only remedy by which to give my patient a chance for life.

Accordingly, on Monday morning, the 10th day of October, and the 8th day of Holly's illness, I, with the kindly

assistance of my friends Drs. A. S. Huffard and Thomas Witten, performed the operation of gastrotomy, opening the abdomen between the umbilicus and pubes, along the linea alba, five inches, through the peritoneum; and passing my fingers to the supposed point of obstruction, I found the diagnosis to be correct, the invagination occurring in the small intestines (jejunal) immediately to the left of the umbilicus. The gut *below* the obstruction was very much engorged, and presented every appearance of acute enteritis. The adhesions were pretty firm, but with moderate force they were separated. The wound was closed with sutures, the peritoneum being included; but, on the fourth day, as considerable peritonitis had supervened, the sutures were removed and plaster substituted therefor. The peritonitis very readily yielded to treatment; the temperature did not exceed 100° F., and the pulse did not reach 100. I should have mentioned, that the antiseptic method (Lister's) was used throughout.

On this, the 22d day after the operation, the patient is able to walk, and in a few days will be able to engage in his usual avocation.

A Walk-about Case of Typhoid Fever. By PHIL. S. RIDDELL, M. D., Woodstock, Va.

On Friday night, September 2d, 1881, I was called to see Henry H., age 13, who was suffering with pain in his bowels simulating colic. He had been suffering on the previous night from pain in the bowels and vomiting. Dr. Campbell saw the case during the day, and prescribed bismuth and saccharated pepsin with laudanum, gtt. viij. every three hours until relieved. His pulse on Friday night was 108; temperature, 102½; respiration hurried; considerable tympanitis, with some tenderness on pressure over the abdomen, but not marked.

Sept. 3d, 8 A. M. Patient comfortable, but still tympanitic; pulse, 97; temperature, 101½. Patient lying on his back with his knees drawn up. First took milk freely. At 8 P. M., the patient was comfortable and expressed himself as feeling much better. No action from bowels.

Sept. 4th, 1:30 A. M. I was called to see the patient on account of a return of the abdominal pain and distress, which was now accompanied by vomiting, increased tenderness and tympanites. Dr. W. H. Triplett, of Washington, D. C., who was here on a visit, was called in consultation

(Dr. Campbell being out of town). We found the temperature to be 102½°; pulse, 140; countenance anxious. A full history of the case revealed the fact that the boy had had diarrhœa for several weeks previous to the attack of cramps. He also had bleedings from the nose and a capricious appetite, a furred tongue, but was, nevertheless, out of the house during the day, and had been fishing and engaging in other diversions common to boys of his age, but was considered out of health by his family. The amount of peritonitis which was now developed, taken in consideration with other symptoms, confirmed the belief that the case was one of typhoid fever with perforation, and more especially since there had been no traumatic cause. The opium in full doses was continued, as also the warm applications. At 8 A. M. the pulse was 160, very small; countenance anxious. Tympanites, but no tenderness on pressure; patient expressed himself free from pain. The condition was now realized in a case of peritonitis which immediately preceded dissolution. He survived till 6 P. M.

Post-mortem.—Peritoneal cavity filled with exudation products, serum, albumen and pus. The visceral and parietal peritoneum universally involved. Mesenteric glands much enlarged and intensely injected. There was ulceration and perforation of the small intestines near the cæcum, and several grape-stones, together with feculent matter, were found in the peritoneal cavity.

Correspondence.

"Remittent Fever of Puerperal Women."*

New York, October 25th, 1881.

Dear Doctor Manson,—I received your courteous letter and the *Virginia Medical Monthly* yesterday, and seize my first leisure moment to reply. I have read with great pleasure your very interesting and able paper on "Remittent Fever,"

* [Note by the Editor.—It is due both to Dr. Barker and to Dr. Manson to publish the accompanying letter from the eminent author of the best work yet given the profession on "Puerperal Diseases." In addition to a generous recognition of Dr. Manson as the first to call attention to, and to describe in detail this important disease, it gives some interesting notes of cases which have occurred in his practice which go to make Dr. Manson's original contribution (in the *Virginia Medical and Surgical Journal*, January, 1855) the more valuable at the present time.

The history of this correspondence is briefly this: Early in 1880, Dr. Barker

and thank you most warmly for sending it to me, as I had never before seen it. In this essay, under the designation of "Remittent Fever of Puerperal Women," you give a very excellent and truthful description of the same disease that I have called "Puerperal Malarial Fever" in a paper published in the *American Journal of Obstetrics* twenty-five years subsequent to the publication of your paper in the *Virginia Medical and Surgical Journal.*

In your very interesting and able paper, you ask "the special attention of the young practitioner to the peculiar phenomena presented in remittent fever, when occuring in females soon after accouchement;" and you state tersely, but clearly, the reasons which explain this modification of the disease in puerperal women. You also give an excellent account of many of the prominent symptoms of the disease,

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read a paper of much interest on "Malarial Puerperal Fever" before the New York County Medical Society. A synopsis of this paper was prepared by Dr. Hugh M. Taylor, of this city, for the August number, 1880, of this journal. Soon afterwards, Dr. Taylor's attention having been called to the similarity of description of the cases referred to by Dr. Barker and those described by Dr. Manson in 1855, he made a note of the facts in the October number, 1880, of this journal. In regard to the claim of priority made by Dr. Taylor for Dr. Manson, the distinguished ex-President of the American Medical Association, Dr. Theophilus Parvin, of Indianapolis, made some references in the November number, and also again in the December number, 1880, of the *Virginia Medical Monthly.* These several publications seem to have escaped the observation of Dr. Barker. On account of the general interest in the subject which seemed to have been developed by the several publications alluded to, the Editor, during the summer of 1881, addressed a note to Dr. Barker requesting a statement from him as to his claims of priority. Owing to Dr. Barker's absence in Europe, he did not get this letter until his return home, about which time Dr. Manson wrote him the following note :

"RICHMOND, VA., October 20th, 1881.

Professor Fordyce Barker :

My Dear Sir,—Though a stranger to you, I take the liberty of sending you by this mail a copy of my essay on 'Remittent Fever,' which first appeared in 1855. Having seen a notice of some remarks made by you on this disease when assailing puerperal women, which announce the same views of its nature and treatment, I appeal to you to do justice to me in the premises and to address a note stating our relative claims of originality and priority in regard to the disease when affecting women in childbed. I should be glad to have an opportunity to read your works on this or any other medical theme. I have the honor to be,

Yours very respectfully,
O. F. MANSON, M. D.,
Prof. Physiology and Pathology, Med. College, Va."

In response to this letter, as also in reply to the letter from the Editor which had just been received since his return from Europe, Dr. Barker expresses regrets in private letters at not having previously seen the communications referred to as having appeared in this journal, and then forwarded the above important further contribution on the subject. As shown by the last sentence in Dr. Barker's letter, he supposes his letter will be published. We take great pleasure in publishing it, knowing that, aside from his awarding the claim of priority of authorship to Dr. Manson, many of our readers will be interested in the record Dr. Barker gives of some "new experience" he has acquired as to the disease in question.]

as you had observed it. You say that this fever "may be mistaken for the puerperal fever of European authors," and you show wherein the symptoms and the pathological conditions differ, and conclude this part of your essay with the remark that "although the disease, as it presents itself to different observers, is similar in its general features, yet arising in some cases from epidemic influence, and in some instances produced by a specific contagious miasm, it differs widely in its symptoms and causes and requires as equally different modes of treatment."

I am in hearty accord with each of the above statements, and I cordially congratulate you on the fact, that so far as my acquaintance with medical literature permits me to judge, you are the first medical writer who has described this as a distinctive disease—as we both regard it, although we have given it different names.

I am well aware that one who has been engaged in teaching Obstetric Medicine so many years in a city like this, ought to have known so important and valuable a paper as yours, for every conscientious, pains-taking teacher of students ought to be thoroughly acquainted with all the truths that have been published relative to his special department of instruction.

But I may plead in extenuation:

1st, That your essay appeared only in a journal which circulated chiefly in that part of the country which was then more remote from New York than it now is, and I am not aware that I ever saw a copy of it.

2nd, That the description of the puerperal disease was buried, so to speak, in an article on "General Medicine;" and

3rd, That the whole article referred to a class of affections which, at the time of its publication, neither myself nor, do I believe, any other practitioner of the present generation had ever seen in this city.

Malarial diseases seem to have been prevalent in this region in the early part of the century. But it is only within the past fifteen years—I should say even less than that time—that they again re-appeared. Now they have become extremely frequent, and probably engross the attention of the

profession more than any other class of diseases, as malarial influences modify, to a considerable extent, most of the acute and many of the chronic diseases that we are called upon to treat. Malaria has developed rapidly within a few years, east of New York, in regions where it never before had been known; and it has now been heard of, not only in Connecticut, but in Massachusetts and Rhode Island. I am not aware that it has yet been recognized as indigenous—if I may thus use the word—either in Vermont, New Hampshire or Maine.

At the time of the publication of my work on "Puerperal Diseases," I had never met with a case of the disease described in our respective essays, and, indeed, I may add that it is now but six years since I recognized its peculiar distinctive characteristics.

I beg to add a word in explanation of the history of my paper on "Puerperal Malarial Fever." I have always held that every man owes a duty to his profession, and that every practitioner of medicine should do all in his power to add to the interest and usefulness of the Medical Societies where he resides.

Much as I detest writing, perhaps partly for the reason that I have no time for it, except when I ought to rest or indulge in some recreation, I have, for some years, contributed one paper annually for some one of the Medical Societies in this city. I was requested to read a paper before the New York County Medical Society. I selected for a subject the one that I thought of the most practical importance, that I felt myself competent to discuss. I had seen and studied the disease in question in a considerable number of cases, and had given the name which was accepted by many of my professional brethren in this city. The paper was written at one sitting after dinner on Sunday evening before retiring to my bed at some early hour on Monday morning, and was read before the Society that evening. It was simply intended to be a clinical, practical study, without any reference to the literature of the subject. In the paper, I make no claim to priority of description, but expressly state that "the disease itself has probably been met with by most who are

engaged in obstetric practice in malarial regions." I congratulate myself on the fact that I accomplished more than I anticipated, in that I have been instrumental in bringing to the notice "of a new generation of physicians that has arisen" (to quote from the editorial note on your paper) "so valuable a contribution to practical medicine which has been at last, though too tardily recognized by [your] his brethren."

From what you have done, I have a right to assume that you would feel some interest in learning any new experience that I have acquired as regards the disease in question.

Late at night, on December 31st, 1880, in the most boisterous snow storm of the season, my friend, Dr. Lusk, Professor of Obstetrics in the Bellevue Hospital Medical College, called upon me to visit a young wife in the upper part of the city. He prefaced his request, by saying that when he heard my paper on "Puerperal Malarial Fever," and afterwards when reading it, he was skeptical as to the evidence of the disease as having the characteristics, which would justify its designation as a distinctive one; but now, he had a case which he must regard as typical. The lady was confined with her first child December 22nd. The labor was perfectly normal; and on the eighth day, she declared herself well enough to get up and go about as usual. But during the day she had rather a severe chill. There were no pelvic or abdominal symptoms. The next day she felt perfectly well, but her mother, who thought herself a homœopathist, and believed that quinine was a most dangerous medicine, dissuaded her daughter from taking Dr. Lusk's prescription. On the following day, she again had a most violent and prolonged chill, which was followed by excessive prostration, gastric irritability and psychical disturbances. When I saw her, she was delirious, with a cold, clammy surface, but the temperature was 105.5° and the pulse 134. Very large doses of quinine brought the temperature down several times—once to 101°, but it would soon rise to a higher point than before, as 106°, 107°, 108.5°, and she died on the morning of January 7th, apparently solely from the intensity of the fever, in spite of every measure which Dr. Lusk and myself could devise.

This is the only case which I saw last winter terminate in death. But I had two in my own practice, and I saw quite a number with other physicians, where from six to ten days after labor and a previously normal convalescence, the patient was suddenly, without apparent cause, attacked with severe chills, a rapid pulse, a high temperature (from 105° to 107°) and followed by other symptoms, differing in each, but all of a grave character. Then would follow complete remission of fever and entire disappearance of the other attendant symptoms, and a recurrence of the chills afterwards in periods varying in different cases from one to eight—in one case twelve days. Early in the winter, I commenced the plan of giving all of my patients ten grains of quinine daily for a week or two before the anticipated confinement, and it was in all continued for ten days after labor. If the patient gave any history of previous malarial poisoning, the quinine was given in much larger doses. But in two of my cases, this prophylactive treatment was not effective in preventing the development of the poison, as in one the chill occurred on the eighth and the other on the tenth day.

Since the case which I saw with Dr. Lusk, I have found in all that I have seen, whether my own patients or those of other physicians, that the following treatment has been invariably successful in bringing the temperature to nearly a normal standard and reducing the pulse in a few hours.

In this city, we have the advantage of trained nurses who are perfectly competent to use the thermometer and count the pulse. The directions are to give a powder of twenty grains of the salicylate of soda in a wine-glassful of the artificial Vichy water (which our druggists keep in syphons and which is the most palatable way of giving the salicylate) every hour until the temperature becomes nearly normal. In most cases, three doses produced this effect; in two, only four doses were required, and in one five. In most cases a good deal of depression follows the subsidence of the fever which sometimes alarms friends, but in all, this soon passes off readily after the free use of stimulants. I believe that I am indebted to my partner, Dr. A. A. Smith, Professor of Therapeutics and Clinical Medicine, for the suggestion of this treatment.

During the remission, I give the hydro-bromide of quinia in as full doses as the peculiar system of each patient will tolerate, and such treatment in detail as regards laxatives, diuretics, stimulants and tonics as are indicated.

I am now experimenting in regard to the effect of Déclat's method of destroying malarial poison in the system by the hypodermic use of his pure carbolic acid, and with some hope of good results. His preparation is kept by Hunt & Dunlap, 1200 Broadway, with directions for its use. It requires a special hypodermic syringe, which is made by Ford, who is at Caswell & Hazard's, corner of Twenty-fourth street and Broadway. As I have long been a sufferer from malarial neuralgia, I am testing this treatment on myself. Two of our physicians are quite enthusiastic in regard to the results that they have obtained, but as yet my experience is too limited to permit me to express any opinion as regards the value of this treatment.

One of my distinguished friends in this city is an enthusiastic advocate of prolonged cold affusion on a Kiblee's cot, as the most effective anti-pyrectic measure. In two cases, this had been thoroughly tried before I saw the patient, and it was very successful in reducing the temperature to the normal standard. But in one, mastitis developed during the remission, followed by recurrent mammary abscesses; and in the other, the prolonged affusion was followed by a dangerous collapse and a grave capillary bronchitis. These complications greatly retarded convalescence. I should hesitate a long time before I could venture to recommend prolonged cold affusions in puerperal women.

In conclusion, I beg to say that you have my permission to make any use that you choose of this letter; but if you desire that it should appear in the *Virginia Medical Monthly*, which has re-published your paper, I can only express my regret that I have not the time to make it more worthy of its pages.

I am, very sincerely yours,

FORDYCE BARKER, M. D.

To Professor O. F. Manson, M. D.

Original Translations.

From the French and German. By WILLIAM C. DABNEY, M. D., Charlottesville, Va.

Foreign Bodies in the Knee-joint Removed with Antiseptic Precautions.—At the meeting of the Société de Chirurgie on the 5th of October last, M. Monad reported a case in which he had removed a "pedunculated foreign body" from the knee-joint. The joint was opened, the foreign body removed and the pedicle tied with catgut. Lister's atiseptic dressing was applied, and a drainage tube left in the wound. Fifteen days after, the patient was cured and had perfect use of the joint.

In the discussion which followed the reading of the paper, M. Nicaise said that he thought drainage was indicated only in cases where there was some articular complication, such as arthritis or dydrarthrosis; if the articulation itself was healthy, it was better, in his opinion, to abstain from such treatment.

M. Lucas Championière said that he was in the habit of using a drainage tube in all but the most favorable cases. If the operation was tedious, or if from any cause there was reason to fear a subsequent arthritis, he invariably established drainage; but he ordinarily withdrew the tube earlier than most surgeons, allowing it to remain only three or four days.

M. Monad said he had twice extracted foreign bodies from the knee-joint, and on both occasions employed the drainage tube with very satisfactory results. In neither case was there much fluid in the joint.

M. Verneuil said that he did not ordinarily employ the drainage tube; but at the same time he did not close the wound made by the operation, and thus allowed a free drainage of pathological fluids. He applied over the wound carbolated gauze and wadding. He had recently operated twice in this way, and both cases terminated satisfactorily. In the first case, the dressing was not removed for thirty days; in the second, it was removed after eighteen days.

[The "foreign bodies" here described are evidently what are commonly described in English works on surgery as "movable" bodies in the knee-joint, and not substances introduced from without. All through the discussion, however—the abstract of which we have taken from *Le Prac-*

ticien of Oct. 17—the expression used is "corps étranger."—TRANSLATOR.]

Treatment of Tonsillitis by the Bicarbonate of Soda.—In *Le Practicien*, of September 19th, is a paper on this subject by Dr. Giné, Professor of Clinical Surgery at Madrid. The paper was originally published in the *Presse Medicale Blge.*

Dr. G. asserts that repeated topical applications of sodium bicarbonate to inflamed tonsils, is an exceedingly efficacious mode of treating this painful affection. The medicine may be applied, either by insufflation through a tube, or it may be placed on the inflamed glands by the finger of the patient himself. He counts his cases of rapid cure of tonsillitis in this way by the dozens. In no case have the applications proved useless, and often a cure is obtained in twenty-four hours; ordinarily, the relief is instantaneous.

The agent is especially useful in the early stages of the disease as an abortive measure. So great is Dr. G.'s confidence in this mode of treatment, that he considers the excision of enlarged tonsils a very unnecessary procedure.

[In the chronic form of tonsillar enlargement and inflammation, a combination of solid extract of ergot, grs. xx; tincture of iodine, +℥j; and glycerin, +℥j, applied to the tonsils twice a day, has proved very serviceable in my hands. W. C. D.]

Complete Rupture and Partial Detachment of a Coil of Intestine, from a Contusion of the Abdomen, without Apparent Lesion of the Skin.—A remarkable case of this kind was recently reported to the Société Anatomique, the account being subsequently published in *Le Progrès Médical* of October 15th.

A man, sixty five years of age, was admitted to the Saint Antoine Hospital, and stated, on admission, that the whole of a carriage had passed over him a short time before, causing a severe pain in the left side of the abdomen. No lesion of the bones, nor of the soft parts could be discovered; there was no ecchymosis. The skin was slightly abraided near the anterior spine of the ilium on the left side, where the pain was located. Pressure on the abdomen at this point was painful. There was a slight wound and a little ecchymosis just below the left eye. The general condition of the patient when he was admitted to the Hospital, immediately after the accident, was very satisfactory, and a favorable prognosis was made, though the possibility of injury to some internal organ was recognized. On the same evening, about four or five hours after the accident, peritonitis made its appearance, and the patient died two days afterwards.

At the autopsy, all the lesions observed in purulent peritonitis were presented (pus, recent false membranes, redness and commencing adhesions between the coils of intestines). This peritonitis had been caused by a rupture of one small intestine situated about its middle. A portion of one of the coils, nearly three centimetres long, was almost completely detached. It was held in place by the mesentery, which was itself torn. The injuries of the intestine were circular, sharply defined, and looked as if they had been made by a cutting instrument. Redness and infiltration of the mesentery and intestine were very marked in the neighborhood of the injury, but there was no effusion of blood. The intestines at other points were filled with a whitish fluid. There was no injury done to the other internal organs.

The Medical Uses of Carbolic Acid. The Antipyretic and Diaphoretic Action of the Acid and its Soda Salt.—M. Raymond read a paper on this subject at a recent meeting of the Société de Biologie. The following abstract of the paper and of the discussion to which it gave rise, we take from *Le Practicien* of September 12th:

M. Raymond's investigations had especial reference to the use of the carbol preparations in typhoid fever. He administered the acid in the dose of one gramme a day, half of which was given by enema, and the other half was made into three pills, which were taken at intervals of some hours. The temperature usually fell several tenths of a degree during the first hour, and it often fell in a few hours three or four degrees. This depression of temperature, however, is only temporary; and, in order to be made efficacious, the medicine has to be repeated every day, without, however, any increase in the dose. Whenever as much as two grammes a day was employed, symptoms of poisoning supervened; such as black urine, extreme coldness, convulsive tremblings, etc.

By the advice of M. Velpeau, M. Raymond had also tried the carbolate of soda, in the dose of 1½ grammes a day. The results were precisely similar to those obtained by the acid, and it had the advantage over the latter of being harmless. It was given in divided doses at intervals through the day. Simultaneously with the lowering of the temperature, carbolic acid produces in a short time a profuse diaphoresis; and the question suggested itself, whether the depression of temperature might not be due to this, rather than to any special and direct action of the carbolic acid on the heat formation. In order to decide this point, M. Raymond in-

jected under the skin one-fourth of a milligramme of duboisine, and thus suppressed the perspiration; but the abatement of temperature occurred just as in other cases. The acid thus diminishes heat production and does not increase the heat loss to any great extent. It does not modify the course of typhoid fever.

In mild cases of erysipelas, carbolic acid, applied externally and used as an injection, answered well; but when the disease was of severe form, it was found to be without value.

The febrile movements of pulmonary tuberculosis are not modified by carbolic acid.

M. Hallopeau spoke very favorably of the action of carbolic acid in typhoid fever. He added, also, that in many cases of this disease he had found alternate doses of salicylate of soda and quina to exert a very decided antipyretic action.

[The Translator has found that three or four 15-grain doses of salicylate of soda, at intervals of an hour, and followed an hour after the last dose by 15 grains of quinine, exerts a most decided antipyretic action, and suggested this method of administration in the *Virginia Medical Monthly* for December, 1878.]

M. Dumontpellier said that the method of reducing the temperature by the application of cold externally, was far preferable, in his opinion, to the administration of carbolic acid, because the fall of temperature, when external cold was employed, was progressive and lasting.

M. Hanot reported two cases of typhoid fever, in which the administration of carbolic acid had a most favorable effect; in both, there was a reduction of more than three degrees in the temperature, and the patients were well—one in 16 and the other in 14 days. At the time of the defervescence of the fever, there was an eruption of vesico-pustules, in which the microscope showed myriads of bacteria.

Action of Iodoform in the Treatment of Wounds, and its Influence over Fungous Processes.—A paper with this title was read by Dr. Mikulitz before the k. k. Gesellshaft d. Aerzte, in Vienna, recently, and was subsequently published in the *Rundschau* for September, 1881.

Dr. M. had studied, in connection with Pannet, the antiseptic action of iodoform, and found that while the drug was not a very powerful antiseptic, its action was constant; and that, after the addition of some of the powder to urine, blood, or other discharges, decomposition did not take place, nor were any bacteria developed.

The mode of application is very simple. Fresh wounds, or those which had already undergone some change, as well as ulcers, abscess cavities, fistulous passages, etc., were sprinkled with the powder, over which was applied a simple bandage. The addition of one drop of oil of bergamot to ten grammes of iodoform greatly lessens the unpleasant odor. In certain cases it was found convenient to make little rods of gelatine, gum or cocoa butter, to which iodoform had been added in the proportion of one gramme of iodoform to ten of the vehicle; or, it might be dissolved in ethereal oil and injected into the tissues. The first method, however, is much the most convenient, and was the one usually employed.

The number of cases subjected to this treatment was nearly 200, and they were divisible into three categories: 1. Fresh wounds; 2. Wounds infected with septic matter; 3. Those having a tubercular basis, such as caries and fungous processes.

In the first class were included such wounds as those caused by castration, extirpation of tumors, and removal of the breast. In these cases there was no general reaction, no fever, very little swelling, never any decomposition of the secretions from the wounds, and, consequently, no danger of the absorption of septic matter. Healing took place rapidly.

By this simple method of treating wounds, Dr. M. thinks that military surgery will be robbed of many of its dangers and inconveniences. In wounds about the mouth, such as that caused by removal of a cancerous tongue, for instance, or wounds of the vagina or rectum, or such as communicate with the peritoneal cavity, a little bag of muslin filled with iodoform, and placed over the wounded surface, will cause it to pursue an aseptic and non-febrile course. The same is true of ulcers and phagadenic processes. Most unexpected and favorable results have been obtained from the local use of iodoform in those diseased conditions having a tubercular origin. In caries of the joints with fungous granulations and fistulous passages of long standing, a complete cure was obtained by freely exposing the granulations, and then filling the cavity of the joint and the fistulous passages with pulverized iodoform. The action on the fungosities seem to be entirely a local one, and it is necessary that the powder be applied directly to the diseased surface. In one case, when death occurred from pulmonary tuberculosis during the treatment, it was found that new granulations were springing up near those which were destroyed by the iodoform.

Unfavorable results were obtained in two cases. These were delicate children who had suffered a long time from caries, who died with symptoms which were supposed to be due to poisoning by iodoform. They improved for three weeks and then were taken with prostration, great restlessness, loss of appetite, vomiting, dilated pupils and inability to stand, though there was no distinct paralysis. The autopsy gave a negative result, but Prof. Leyden found in certain organs a fluid containing iodine, which exerted a toxic action.

From the French. By WM. G. EGGLESTON, Hampden Sidney, Prince Edward Co., Va.

Treatment of Alopœcia by Hypodermics of Pilocarpin (*Revué Méd. Franchaise et Etrangère*).—A most valuable property of pilocarpin consists in its special action on the capillary system. The case of a woman of 33 is reported, who was totally bald; even the eyebrows, eyelashes, hairs in the axilla, and those on the pubus having completely disappeared. M. André, having tried various medications, and being unable to account for the alopœcia, began with hypodermic injections of one centigramme (about one-eighth grain) of the muriate of pilocarpin of the following solution:

℞. Pilocarpin chlorohydrat..... 20 centigr.
Aquæ destill ..... 20 gram.
M.

After a few days the quantity was increased to grain one-fourth. The perspiration became so abundant that the woman, after walking a few miles to her home, found her *stockings* literally drenched. The injections were commenced about the last of March. On the 18th of April a large quantity of hair had made its appearance. On July 17th, after only ten injections, the head was covered with blonde and soft, silky hair one-fourth of an inch long. The pudendal hairs and eyebrows had also appeared.

Treatment of Phosphorus Poisoning by Spirits of Turpentine. Rommalacre, with whom Personne and Mareon agree, says: "Speaking generally, fifteen to thirty centigrammes (two to four grains) of phosphorus introduced into the stomach will prove fatal. Spirits of turpentine suspended in a mucilaginous drink by means of the yolk of an egg or administered in a bolus, does not act as an antidote in dogs. It is by far preferable to give it without the vehicle in ten-drop doses, repeated every half hour for two or three hours, then stopping for an interval, according to the state of the subject. We

must forbid the use of alcohol during the use of the turpentine. It is also necessary to forbid mucilages and mucilaginous drinks; give water as a drink."

Animal charcoal is worthy of special mention in phosphorus poisoning, in the form of pills. Eulenberg and Kohl have proposed it as a means of destroying the pernicious effects of vapors of phosphorus in the manufacture of friction-matches.—*Idem.*

Treatment of Ophthalmia Neonatorum —Prof. Credé (Leipzig) treats ophthalmia neonatorum by instillation of nitrate of silver solution, preceded and followed by bathing thoroughly with a two per cent solution of salicylic acid. He is always successful. He attributes the affection to contact with certain morbid secretions of the vaginia during delivery.—(*Paris Med.*)

With respect to *Adenoid Vegetations of the Pharyngeal Arch*, Dr. Neger (Copenhagen) says: "Every case demands extirpation and general treatment by sulphur and iodine. As to the means of extirpating then, the galvano-cautery seems to be regarded as the only safe instrument. The growth should never be cut if large. Löwenberg has used the galvano-cautery with the laryngeal mirror.—(*Paris Med.*)

Iodoform in Pulmonary Diseases.—Prof. Ciaramelli has found iodoform efficacious in brancho pulmonary affections, chronic bronchitis with bronchorrhœa, in pulmonary emphysema and in the tuberculosis of infants. He uses the following formula:

℞. Iodoformi..... gr. iss.
Lycopodii pulv..... gr. vij.
Ext. seminis fœniculi..... gr. xv.

M. Make ten pills. S. One every three to five hours for an adult.—(*Revista Ital. di Terop, etc.*)

Crocker (*Lo Sperimentale*) also finds it useful in eczema and lupus. He uses:

℞. Iodoformi..... gr. xv.
Ol. eucalypt..... ℥ss–i.
Vaselin..... ℥i.

Treatment of Cancer Pains.—Auger proposes for cancer pains the following:

Sulphate of atropine..... gr. v.
Distilled water..... ℥j.

Moisten a compress (or cloth) and apply, covering with oiled silk or gutta percha to prevent evaporation. Renew three to four times daily. This is followed by ease without the symptoms of absorption as mydriasis and dryness of the throat. Its local action consists in causing vascular contraction and diminished sensibility.—*Paris Medical.*

Proceedings of Societies.

Section on Obstetrics and Gynecology, Medical and Chirurgical Faculty of Maryland.

Stated meeting held October 28th, 1881. (Reported for the *Maryland Medical Journal.*) The Section was called to order at the usual hour—present Drs. Griffith, Ashby, Morris, Erich, Reiche and Cordell. * * *

Retained Placenta with Symptoms of Septicæmia.—Dr. Morris reported a case where a patient, attended by a midwife, had retention of urine and fever some days after labor. About the 5th day, a mass was found in the vagina, which on removal was found to be one-half of the placenta. Subsequent recovery was slow, it being six weeks before the bad symptoms had entirely disappeared.

Influence of Labor on Organic Disease of the Heart.—Dr. Ashby reported a case of labor, which he saw half an hour after the birth of the child, the patient having had only a midwife to attend her. She was nervous and hysterical, and about a half gallon of blood was found in the bed under her. Touch showed a retained placenta. Pulse at the wrist gone; extremities cold; mucous rales abundant in the chest. A hypodermic injection of whiskey was given, the hand was introduced and the placenta peeled away from the left and upper part of the uterine cavity. Hæmorrhage ceased at once; but notwithstanding this and the free use of carbonate of ammonia, the patient died an hour and a half afterwards. Dr. Ashby did not think the amount of blood lost sufficient to explain the fatal event, which, upon further inquiry, he believed to be due to organic disease of the heart, the history showing that the woman had been (previous to her pregnancy), œdematous in the feet, and had suffered from shortness of breath on ascending stairs. Dr. Angus Macdonald, some years ago, reported 28 cases of labor in patients suffering from organic disease of the heart, 17 of whom died, as he believes, from the latter. Mitral involvement was most common in the fatal cases, and next in frequency were aortic involvements.

Dr. Cordell had seen two cases of very well-marked mitral insufficiency, in which the labor had been unusually easy, rapid and free from unpleasant symptoms. Both cases had been under observation for several years, and the symptoms of heart disease were so serious as to excite much apprehension as they approached term. They were both frail young

ladies, subject to attacks of inflammatory rheumatism, with loud apex systolic murmurs propagated to the scapular region, and extreme dyspnœa on exertion, palpitations, attacks of vertigo, strong tendency to pulmonary congestion, and in one frequent epistaxis and annoying dyspepsia. One of these ladies was now the mother of two children, the other of one, and their general condition was now rather better than before their marriage..

Atropia to Restore the Circulation in Collapse.—Dr. Erich related the following case, as illustrating an important point in the treatment of collapse after labor due to acute anæmia. The patient (like those already cited) had been in the hands of a midwife. She had been bleeding profusely and was cold, with great thirst and perspiration. A bandage was applied around the abdomen over a Potter's bag (the bag inflated), and the vagina tamponned. The idea occurred of using atropia, with the view of checking perspiration and restoring blood-pressure in the body. With this view, $\frac{1}{120}$th grain doses were given hypodermically, and with striking results. As soon as the perspiration ceased, the warmth in the surface returned. It was three months before the patient was able to resume her work. *Auto-transfusion* was also practised in this case by bandaging and elevating the patient's lower extremities, and elevating the feet of the bedstead.

Transfusion—Auto-Transfusion.—Dr. Erich spoke of transfusion in cases of collapse from post partum hæmorrhage. In one case he had tried Aveling's instrument, using the arm of the patient's son to get the blood, but could not get the blood to flow, because clots formed in the instrument. He thought defibrinated blood should be employed. He preferred auto-transfusion. About ℥vj of blood is all that can be safely introduced by transfusion, and this amount can generally be obtained from the lower extremities by squeezing and bandaging them and elevating the feet of the bedstead. Electricity is one of the most efficient agents to excite contractions.

In an experiment upon a dog he bled the animal "within an inch of his life," then injected his defibrinated blood back into his veins, and the animal revived.

Dr. Reiche had witnessed the use of the transfusion apparatus once only, and then the results did not impress him favorably. The patient had a uterine fibroid, and bled frightfully at each monthly period. She lingered on, however, recovering each time until the transfusion; although conscious before this was practised, she was not so afterwards, and her death occurred in two days.

Rupture of the Soft Parts During Labor Limited to the Vaginal Floor.—Dr. Erich reported a case in which transverse rupture of the vaginal floor occurred without involving the exterior. Hæmorrhage was checked by pressure on the parts with the fingers.

Dr. Rohé had had a similar case, with profuse hæmorrhage.

Dr. Erich thought it was very important to examine the woman in every case after labor, to satisfy oneself that the parts were in a proper condition.

Dr. Ashby coincided with this opinion, whilst Dr. Morris dissented from it.

Laceration of the Perineum Unknown to the Medical Attendant. Dr. Cordell related the following case bearing upon this question: He had a case of labor which occurred whilst he was suffering from an attack of lumbago, and in consequence he got a friend to attend it for him. On the fourth day, the friend reported that the patient had gotten along all right, and that he did not think it necessary to see her longer. Dr. C. visited the patient the same day, and she reported herself as doing well, except for weakness. On the fifth day, the same report was made. But as she had had no stool, a dose of castor oil was ordered. On the sixth day she complained also of smarting in passing water, which led to an examination, when the perineum was found ruptured up to the sphincter ani. On the following day the parts were brought together with silver sutures, and the patient was scarcely retarded by it on her getting up.

Catgut Sutures in Lacerated Cervix.—Dr. Griffith reported the successful use of catgut sutures in a case of lacerated cervix. The perineum had been ruptured about twenty years before, and in consequence the uterus hung very low down in the pelvis. The catgut acted admirably.

Analyses, Selections, etc.

Treatment of the Irritable Bladder in Women.—Dr. J. H. Etheridge, of Chicago, in the *Chicago Medical Journal and Examiner*, for November, 1881, has an excellent paper on this subject, which we give in full.

A too frequent desire to empty the bladder may be said to constitute what is called "irritable bladder." Hyperæsthesia, supersensibility of the viscus is the cause of this malady. It ought not to be confounded with irritability of the bladder, which is a physiological—not a pathological phenomenon.

"Irritable bladder," and "hyperæsthesia of the bladder" can be used as synonymous expressions.

The *cause* of irritable bladder determines its treatment. When it is unknown, treatment becomes guess-work. Consequently the physician's first problem of treatment is the determining of the *cause* in each individual case of vesical hyperæsthesia.

Causes of irritable bladder may be divided into *intrinsic* and *extrinsic* causes.

The *intrinsic causes* include abnormalities of the urine, consisting of—1, Too *limpid urine;* 2, Too *concentrated urine;* 3, An excess of *uric acid*, as shown by gravel, calculi, and amorphous urates; 4, *Triple* and *amorphous phosphates*, shown in decomposition of the urine; 5, *Oxaluria*, and 6, *Sugar* and *albumen*.

Among intrinsic causes may be included abnormal substances not of urinary origin, which may be enumerated as follows: 7, *Pus* and *blood* from renal or cystic diseases; 8, *Feculent matter*, gall stones, joints of tape-worms and round worms; 9, *Hair*, *fat*, *teeth* and *bones* from a fistulous communication with a dermoid cyst.

Other intrinsic causes include—10, *Cystitis*, *acute or chronic;* 11, *Malignant disease* of the bladder, primary or secondary; 12, *Polypi;* 13, *Cysts* and *tubercles;* 14, *Hypertrophy*, centric or eccentric.

Intrinsic causes may include disorders of the urethra as well as of the bladder, and are thus indicated: 15, *Urethritis*, acute and chronic; 16, *Neoplasm;* 17, *Dilatation of the urethra*, including that of the upper third, and of the whole canal; 18, *Dislocation of the urethra;* 19, *Prolapsus of the urethral mucous membrane;* 20, *Stricture*, and 21, *Incomplete Fistula.*

The *extrinsic causes* of irritable bladder are numerous, often difficult to define, and are much more common than intrinsic causes. Fully two-thirds of the cases of this disorder arise from extrinsic causes. Presenting uniformly but the one symptom of frequent urination, these causes are infinitely less correctly differentiated by physicians, and consequently are worthy of the closest scrutiny and most careful management, therapeutically and otherwise. Every experienced gynecologist can recall only too many defeats in the treatment of irritable bladder from extrinsic causes because of not accurately ascertaining the causes in each case. These causes include: *a.—Oöphoria*, or ovarian, vascular excitement; *b.—Pressure on the bladder or urethra* from the uterus,

or from rectal abnormalities, or from intra-pelvic tumors; *c.—Sympathetic irritation* from uterine inflammation; *d.—Malignant disease of the cervix uteri; e—Pregnancy; f.—Vaginismus; g.—Acute pelvic peritonitis and cellulitis; h.—Ascarides; i.—Hysteria; k.—Mental troubles, fright; l—Exposure during menstruation; m.—Falls, and blows over the bladder; n.—Masturbation and copulation*, and *o.—Malaria.*

The causes herein mentioned are enumerated *in extenso*, for the purpose of showing that the treatment cannot be the same in all cases of irritable bladder.

The management of cases produced by causes numbered one to five inclusive, usually involves remedies addressed to nutrition. *Too limpid urine* suggests hysteria, anemia, exposure to cold, mental emotion, in short, diuresis from any cause. Treatment of these conditions involves remedies addressed to the cause, whatever it may be.

Too concentrated urine, shown by the small amount voided and by high specific gravity, calls for water, simply. Ordinary drinking water, Poland water, Apollinaris water, or any of the simple mineral waters, capable of increasing the amount of water excreted by the kidneys will answer.

An excess of uric acid is one of the most common of all of the many causes of irritable bladder. Neglected, it speedily causes a congestion of the mucous membrane of the bladder, and this, in turn, propagates the polyuria and dysuria. The organic changes arising from this congestion are of a sufficiently progressive character to afford a constantly acting cause of irritable bladder. In this way, a bladder thus afflicted, at first, say, three months ago, presents *to-day* an irritable condition arising from the products of chronic congestion, whereas the excess of uric acid starting in motion this pathological train of symptoms ninety days ago, now occupies a very inferior position in the cause to day. Consequently the majority of cases treated by physicians present not only an excess of uric acid, but they present also a vesical mucous membrane congestion. To treat this condition requires skill and patience. An excess of uric acid indicates a systemic, and, especially, an alimentary defect. This excretion, possessed of another particle of oxygen, becomes urea and ceases to be a pathological product. To supply that oxygen is no easy matter. If the blood be made to carry more oxygen and thus supply the deficiency, we must give remedies to improve the oxygenating power of the blood. For this purpose one quarter to one grain doses of permanganate of potash, thrice daily, will be found useful.

This powerful oxydising agent yields up its oxygen in the form of ozone and converts uric acid into urea. Irritable bladder relieved by the permanganate is *relieved* simply—*not cured.* The alkaline carbonates neutralize uric acid excess directly, and indirectly diminish it by their action on the liver. The citrate or carbonate of lithium dissolves uric acid, and is a remedy of undoubted efficacy: (Murchison, Sir Henry Thompson) Colchicum, in small doses, improves the character of the digestive ferments and promotes more perfect digestion, and in this way supplies the liver with better pabulum, thus causing a lessening of the amount of uric acid (Lauder Brunton). Its action is surprisingly happy in very many cases—but in many other cases it seems to extend the point of tolerance, causing, unexpectedly, a vomiting and violent purging, an effect greatly to be deprecated. Fruit acids are converted into the alkaline carbonates in the blood and become dissolvers of uric acid or diuretics, and in this way are efficient aids in treating the uric acid excess. Many patients will be benefited by a hot lemonade at bedtime, or by eating a lemon before breakfast daily, or by partaking liberally of acid fruit at breakfast and lunch times. The uric acid excess thus relieved can be said to be relieved only--not cured. It is well to use them because they act quickly and satisfactorily. Thus relieved temporarily, the physician can take the necessary time to determine where the ultimate cause of uric acid excess lies and select remedies to cure it. The systemic defect is usually the ultimate cause and will be found in the primary or secondary assimilation. Constipation is almost always a conspicuous symptom in these cases. Its resultant evils include stomachic and intestinal indigestion. From it results a condition of blood poisoned with excretory material, which causes all functions of the abdominal organs to be imperfectly performed. The secreting cells of the liver fail to elaborate their products perfectly, and from this failure arises the uric acid excess. A thorough catharsis temporarily relieves all of these symptoms, and it is an exceedingly unwise thing to do to use powerful purges, because they are of only temporary benefit. The course to pursue is to give a daily laxative, and thus by degrees purify the blood and secure a sustained functional improvement in the organs of primary assimilation. To this end, the daily use of Rakoczy, Hunyadi Janos, Friedericshall, or Victoria mineral water in warm weather; or of aloes, podophyllin, cascara sagrado, compound extract of colocynth, compound liquorice powder, or euonymus, in cold

weather, will be useful. To improve the secondary assimilation we can resort to the use of bark and iron, arsenic, strychnia, minute doses of mercury when not contra-indicated, and coca. Of prime importance in these cases is the management of the diet. Farinaceous articles and acid fruits should be largely used, and only as much of the albuminous articles used as can be thoroughly digested.

Irritable bladder arising from *triple and amorphous phosphates* should be treated by treating the systemic condition producing them. They are usually found in diseases of the nerve centres and after great mental application. They generally suggest the use of rest, ergot, galvanism, massage, tonics and improvement of alimentation.

Oxaluria should be treated by paying especial attention to the "moral, mental and physical condition, and time must not be wasted in treating a mere symptom" (Skeene). Strychnia and the mineral acids will yield the best results.

Cases involving *diabetes or albuminuria* call for treatment addressed exclusively to these conditions.

Irritable bladder arising from causes enumerated, 7th to 9th, inclusive, must be treated according to indication wholly, which consists in the removal from this viscus the foreign substances.

Cases involving *cystitis, acute or chronic*, the 10th cause enumerated, are troublesome enough. Some patients will make rapid recoveries. But by far the larger majority of them will prove rebellious. The urine in these cases must be rendered alkaline as speedily as possible. Citrate of potassium, in as large doses as can be borne without causing stomachic distress, is an excellent remedy. The removal of existing constipation by daily laxative doses of mineral water upon rising in the morning, is of importance, as it secures a systemic condition favorable to producing urine of minimum acidity, after which smaller doses of the citrate of potassium will suffice to produce alkalinity of the urine. At the same time, restricting the diet to articles calculated to aid in avoiding acid excess in this excretion, should be prescribed. An exclusive milk diet has cured cases of long standing and of great severity. Alkalies, minim doses of tinct. cantharides, hourly, twenty grain doses of bromide of ammonium, the solution of bromo-hydric acid, benzoate of ammonia in buchu, laxatives, proper diet, quietude, will relieve most cases of irritable bladder from *acute* cystitis.

The irritable condition arising from *chronic* cystitis, requires a wider range of remedial measures to meet all cases.

Many women, however, are never cured, failure arising from many causes, as lack of pertinacity on the patient's part in submitting to treatment, dyscrasia, failure to apprehend and to remove co-existing disorders which sympathetically propagate the cystitis, etc., etc. Frequent urinalyses are necessary to guide us in the administration of medicines, internally. Acidity is to be modified or abolished by alkalies. Urinary decomposition calls for the sulpho-carbolates, eucalyptus globulus, or for salicylate of sodium. Medicated injections into the bladder are all important in chronic cystitis. A long range of remedies is before us to select from. Antiseptic injections include solutions of common salt, potassium chlorate, carbolic acid, salicylic acid, eucalyptol, and the sulpho-carbolates. Astringent and alterative injections embrace silver nitrate, hydrastis canadensis, tannic acid, plumbic acetate, iodoform, sulphate of zinc and potassic iodide. Forcible dilatation of the urethra, self-restraining catheter and cystotomy are resorted to only after other means have failed.

Cases involving cause enumerated 11, will never be relieved permanently. Opiates or chloral may be used.

Polypi must be removed. No remedies can be resorted to in cases of two frequent urinations caused by polypi.

Cysts and tubercles are rare vesical troubles and usually cause irritable bladder. General tonics to abrogate the systemic condition producing them, and opiates to alleviate the irritable condition seem to be the remedies demanded.

Hypertrophy of the bladder, a not uncommon cause of dysuria and polyuria, must have its cause removed. Tumors and cystocele must be treated *secundum artem:* neuralgia or any functional disorder operating to cause this condition, must be considered and treated before the irritable condition can be removed.

Urethritis, acute or chronic, is a most troublesome condition to remove. The acute form generally calls for the same sort of management accorded to gonorrhœa in the male. The subacute or chronic form calls for injections, alterative and astringent. The utmost patience is necessary to *cure* cases of chronic urethritis.

Neoplasms demand surgical treatment. The general condition of the patient's health can be greatly improved by medication. Tumors or pressure in any way retarding venous circulation from the pelvis demands attention and removal if possible. Removal of the neoplasm will relieve the patient of the irritable bladder.

The Cranial Nerves—Their Origin, Function and Principal Branches (Tabulated by John B. Roberts, M. D., Lecturer on Anatomy and on Operative Surgery in the Philadelphia School of Anatomy; Author of the Compend of Anatomy, etc.)

TABLE OF CRANIAL NERVES.

Number and Name.	Superficial Origin.	Deep Origin.	Foramen of Exit.	Function.	Principal Branches and Distribution.
I. Olfactory.	Three roots from lower surface of frontal lobe.	Anterior centre of optic thalamus, and island of Reil.	Cribriform plate of ethmoid.	Smell.	Bulb, which lies on cribriform plate, sends twenty branches to mucous membrane covering septum and two upper turbinated bones. The trunk and bulb are really part of the encephalon, similar to the olfactory lobes in lower animals; they contain gray matter and have no sheath.
II. Optic.	Optic commissure and tracts	Optic thalamus, and corpora quadrigemina.	Optic.	Sight.	The two optic tracts unite to form the chiasm, or commisure, and thence the two optic nerves proceed to the retinæ. At the commissure the fibres decussate, so that some fibres from the right tract go to the left retina, and *vice versa*. There are also fibres merely passing from one tract to the other (inter-cerebral); and again some fibres in the front of the chiasm, which simply pass from one retina to the other (inter-retinal fibres).
III. Motor Oculi.	Inner side of peduncle of cerebrum.	Floor of aque duct of Sylvius.	Sphenoidal fissure.	Motion.	All muscles of eye, except external rectus, superior oblique and orbicularis palpebrarum; also to ciliary ganglion.
IV. Pathetic.	Outer side of peduncle of cerebrum.	Valve of Vieus sens.	Sphenoidal fissure.	Motion.	Superior oblique of eye.

V. Trifacial.	Side of pons Varolii.	*Large or Sensory root.*	*Ophthalmic Division.*	Sensation.	(1) FRONTAL. supra-orbital, supra-trochlear, } forehead and eyelids. (2) LACHRYMAL; to gland and conjunctiva. (3) NASAL; long ciliary to iris; to septum and tip of nose; to ciliary ganglion.
This nerve resembles the spinal nerves in having a sensory root, with a ganglion upon it (Casserian ganglion), and a smaller motor root. The motor root becomes part of the inferior maxillary division.		Posterior horns of gray matter in medulla oblongata.	Sphenoidal fissure.		
			Superior Maxillary Division. Round foramen.	Sensation.	(1) ORBITAL; temporal to temple; malar to cheek. (2) SPHENO-PALATINE to Mekel's ganglion. from ganglion— Vidian to large petrosal, palatine { anterior, middle, posterior, naso-palatine. (3) ANTERIOR AND POSTERIOR DENTAL to upper teeth. (4) INFRA-ORBITAL to eyelid, nose and lip.
			Inferior Maxillary Division Oval foramen.	Sensation. Motion. Taste.	(1) MOTOR to muscles of mastication, viz.: Temporal, Masseter, Pterygoids. (2) AURICULO-TEMPORAL; to auditory meatus; to optic ganglion. (3) BUCCAL; to cheek. (4) GUSTATORY OR LINGUAL; to anterior part of tongue (taste); to submaxillary ganglion; to Lingualis (motion by chorda tympani of 7th). (5) INFERIOR DENTAL; to teeth; branches—mental; mylo-hyoid.
		Small or Motor root.. Near same locality as Sensory root.			
VI. Abducent.	Medulla oblongata behind pons Varolii.	Floor of fourth ventricle.	Sphenoidal fissure.	Motion.	External rectus of eye.

TABLE OF CRANIAL NERVES—CONTINUED.

NUMBER AND NAME.	SUPERFICIAL ORIGIN.	DEEP ORIGIN.	FORAMEN OF EXIT.	FUNCTION.	PRINCIPAL BRANCHES AND DISTRIBUTION.
VII. Facial.	Behind olivary body of medulla oblongata.	Floor of fourth ventricle.	Internal auditory meatus, aqueduct of Fallopius and stylo-mastoid foramen.	Motion.	*To muscles of expression* { (1) TEMPORO FACIAL DIVISION. Temporal, Malar, Infra-orbital. (2) CERVICO-FACIAL DIVISION. Buccal, Supra-maxillary, Infra-maxillary. (3) CHORDA TYMPANI; to join Lingual branch of 5th. (4) PETROSALS. Large, to Vidian and spheno palatine ganglion. Small, to otic ganglion.
VIII. Auditory.	A little external to the Facial (VII).	Floor of fourth ventricle.	Internal auditory meatus.	Hearing.	To membranous cochlea, vestibule, and semi-circular canals of ear.
IX. Glosso-pharyngeal.	Behind olivary body of medulla oblongata.	Floor of fourth ventricle, and front part of medulla oblongata.	Jugular foramen	Sensation.	Has near point of exit two ganglia; Jugular, and Petrous (Andersch). Distributed to back of tongue (taste); to pharynx; to middle ear by tympanic branch (Jacobson's).
X. Pneumogastric.	Behind olivary body of medulla oblongata.	Floor of fourth venticle, and front part of medulla oblongata.	Jugular foramen	Sensation and motion.	Has near point of exit two genglia; ganglion of Root, and ganglion of Trunk. It passes down neck between carotid artery and internal jugular vein; and thence along œsophagus to stomach and intestines. The right nerve lies behind œsophagus, the left in front. (1) AURICULAR OR ARNOLD'S—Sensation to external ear (2) PHARYNGEAL.—Motion. (3) LARYNGEALS.—*Superior*, Sensation to Larynx, Motion to Crico-thyroid muscle.

Pneumogastric, (*Continued.*)					*Inferior or Recurrent*—Motion to intrinsic muscles of larynx, except Crico-thyroid. (4) CARDIAC.—Motion. (5) PULMONARY.—Motion (?) and Sensation. (6) ŒSOPHAGEAL.—Motion. (7) GASTRIC.—Motion.
XI.					
Spinal Accessory	Behind olivary body; and from lateral tract of spinal cord, as low as sixth cervical nerve.	Below that of x; and from anterior gray horn of cord.	Jugular foramen	Motion.	It is so called because it is the *spinal* nerve *accessory* to the pneumogastric, with which it soon unites. It probably supplies motor influence to the pneumogastric. Distributed to Sterno cleido-mastoid and Trapezius.
XII.					
Hypo-glossal.	In front of olivary body of medulla oblongata.	Floor of fourth ventricle.	Anterior condyloid foramen.	Motion.	Distributed to the "glossus" and "hyoid" muscles, except Palato-glossus (5th), Mylo-hyoid (5th), and Stylo-hyoid (7th). DESCENDING BRANCH, or Descendens Noni, which communicates with 2d and 3d cervical by the so-called Communicans Noni of the cervical plexus.

All these cranial nerves, with the exception, perhaps, of the olfactory and optic, have branches of communication with neighboring cranial, spinal, and sympathetic nerves; but no mention has been made of these, except in cases where they are specially important. It is to be observed that those whose function is common sensation, have ganglia, similar to the sensory, or posterior, roots of spinal nerves. This analogy is greatest in the case of the fifth nerve, which has a small motor root without a ganglion, and a large sensory root with one. The pneumogastric presents a similar character, if the spinal accessory be looked upon as its motor root.

Removal of the Uterus for Cancer.—The November number, 1881, of the *New York Medical Journal and Obstetrical Review* contains a "special article" by Dr. Andrew F. Currier, of New York, in which the various methods of removing the entire uterus for cancer, as practsied by Freund, Schröder, Czerny, and others, are reviewed, as well as the general question of the advisability of removing the organ. He thinks the advantages of the vaginal method over that of Freund (by laparotomy) are enormous—there is but one section of the peritoneum, the intestines are unharmed, there is a better opportunity to discover diseased tissue, which is most likely to be situated in the vicinity of the cervix, and, most important of all, the patients often survive, which is rare by Freund's method. But most patients are not likely to be benefited by either of these serious operations; the most hopeful cases will be those in which the patients are warned of their danger in the early stages of the disease, and in such cases Schröder's supra-vaginal excision of the entire cervix is most likely to prove of service. This operation, while not so radical as removal of the entire organ, and hence not so efficient in cases involving the tissues above the internal os, is far less grave, and is, besides, more thorough than amputation of the cervix as it has ordinarily been done in the past. In those rare cases, however, in which the body of the uterus alone is involved, there is no alternative to laparotomy, either by Freund's operation or by some modification of it. As to drainage—a most important item in such cases—a perfect system seems impossible; but Bardenheuer's, although in the hands of others it has not fulfilled its author's expectations, affords as good results as any yet devised. As to the broad question of whether cancer of the uterus, and so cancer in general, can be radically cured, the author thinks the logic of events points to its approaching solution.

A Possible Preventive of Rabies.—In the *New York Medical Journal and Obstetrical Review* for November, 1881, Dr. L. L. Dorr, of San Francisco, discusses the etiology of hydrophobia, with special reference to climatic influence. The Pacific coast of America, he remarks, presents some peculiar features as regards this disease; from Behring's Strait to Cape Horn, he states, not a well-authenticated case of rabies was ever known. In support of this statement he adduces testimony to which great weight must be allowed. He therefore dissents from the common opinion that climate has no influence over the disease. A test of the power of the

climate of the American Pacific coast to prevent the development of rabies can easily be made, he suggests, with strong probability of proving a blessing to hundreds of human beings who have no other hope. The period of incubation is so long in many cases that several dogs known to be badly bitten by a dog known to be suffering with rabies could be sent there under guard and kept behind prison bars and under observation until the extreme limit was passed. Or a more practicable plan might be to have a number of the many persons who are annually bitten by rabid dogs in the Eastern States and Europe go to that coast, and remain there until the extreme limit of the possibilities was passed, selecting any place from Cape Horn to Behring's Strait—preferably, however, California, where they have a varied climate and all kinds of dogs, and are in close communication with all parts of the world. The patient having a knowlege of these facts, and the support of hope of escape, it might be a power to prevent an attack; and, if he were attacked, the disease might be so modified by the climate as to render it susceptible of cure.

Case of Monstrosity—Twins—Bony Connection about Sterno-Clavicular Articulation, Extending to Umbilicus.—Dr. C. C. Burke (according to the *St. Louis Eclectic Medical Journal*, July, 1881, quoted from the *New Orleans Medical and Surgical Journal*) reports a case of monstrosity of as much scientific interest as the "*Siamese Twins.*" Mrs. L. R. Blackstone, native of Atlanta, Ga., æt. 23; married eighteen months, miscarried twice—once at six months, again at six weeks; fair complexion, light hair, blue eyes, nervous temperament, weight ordinarily 110 pounds. No twins on either side for generations back; children are well developed in every particular. The connection between the twins seems to be of a bony character, commencing about or just below the sterno-clavicular articulation, and extending down to the umbilicus—the two children having one common sternal bone; the connection measures seven inches in length. The false or floating ribs are as in other natural children. There is but one umbilicus, one cord, and there was one placenta. Each child has a separate chest, abdomen and hips; each has two arms, hands, legs and feet; each a separate head, and is perfect in formation. Features are regular, symmetrical—in short, they are perfect little beauties, with a fine coat of black, glossy hair. They were still-born, the difficulties during the progress of labor, necessitating decapitatio n o

one of them. The mother is still living and will probably recover.

Management of the Shoulders in Labor.—Jno. Morris, M. D., of Baltimore, read a paper before the Baltimore Academy of Medicine November 1st, 1881, which we republish from the *Maryland Medical Journal*, November 15th, 1881.

Lacerations of the perineum very frequently occur after the safe delivery of the head. This accident has recently occurred to two of my friends in a single week. In both these cases the head had been safely delivered with the forceps. In one of them, indeed, I had myself assisted the gentleman in attendance in delivering the shoulder presenting anteriorly, and yet the perineum was torn to a considerable extent in the delivery of the remaining shoulder. This looks like faulty midwifery, yet we are told by all the authorities on the subject that such instances are of very common occurrence. Any suggestion, therefore, which tends to obviate this unpleasant accident must, it seems to me, have a practical importance.

I have never met with a case of ruptured perineum in my own practice, which embraces two thousand midwifery cases. I do not know whether this is owing to good fortune or to the means which I invariably adopt in all cases which I am called on to attend. Of course I have met with slight lacerations of the fourchette, but not of sufficient seriousness to require surgical interference.

In the "Transactions of the Medical and Chirurgical Faculty" for 1877 there will be found an article of the writer on the management of the perineum during labor. In that article I mention the various means necessary to be employed to protect its integrity. I there state that the proper plan is, before the head actually commences to impinge on the soft parts, to pass the finger round the whole surface of the perineum, inside, during the pain, and attenuate the tissues by drawing them downwards and backwards. This kind of *massage*, so to speak, is of great service in preparing the perineum for the severe strain it is about to undergo. When the pains are of a violently forcible character it is necessary, of course, to guide the head and control its movements; but if the soft parts be properly prepared in the manner I have suggested, the perineum may be readily slipped under the chin, and the term of the labor thereby greatly shortened. I might now suggest, in addition, the proper management of the glottis and the extension of the left leg at this stage to

produce relaxation of the sphincters. The abduction and flexion of the limbs are proper until the soft parts are completely stretched; then the extension of the left leg adds to the safety of the perineum by its relaxation and the increase in the degree of its inclination. These remarks apply more particularly to the management of the head, but they also have a bearing, as you will see hereafter, on the delivery of the shoulders.

A great rest usually takes place after the delivery of the head, particularly in primiparæ. The young obstetrician at this stage awaits anxiously for a renewal of the pains and sees with horror the face of the child becoming livid. Fearful for its safety, he immediately commences to pull on the head forcibly downwards and backwards. A sudden and violent pain is excited by his efforts; the sphincters contract and the shoulders are suddenly expelled, tearing the perineum in their rapid course. I have seen this occur in the Rotunda Hospital, Dublin, and also several times in this city. It is not good practice at any time to draw upon the head. Among other *contre temps*, I have seen the head torn away from the body by futile efforts to deliver the shoulders in this manner. The proper plan after the delivery of the head is to rotate the shoulders in the reverse direction to that taken by the face, so as to bring them into the opposite oblique direction to that of the head. This rotation can be assisted by placing one hand upon the back of the neck and another upon the sternum as the shoulders are about to pass.

The better plan, however, and the one I always adopt in cases of primiparæ, is to deliver each shoulder separately. After the proper rotation of the shoulders, which should be done very gently, I pass two fingers up into the axilla of the arm presenting at the pubis, gently depressing the head in this movement. I then raise the head up towards the abdomen of the mother, and in a like manner deliver the remaining shoulder. The first shoulder should, if possible, be delivered before the pains re-commence, after the delivery of the head. If I do not succeed with two fingers, I do not hesitate to pass the whole hand and draw down the arm. This is sometimes a little painful to the mother, but it invariably saves the perineum.

The great frequency of rupture of the perineum by the shoulders is due to the fact that they are too often disregarded in the management of the labor. The head being delivered without injury to the soft parts, the accoucheur thinks all difficulty is over; but this is a very great error.

The shoulders form abrupt stumpy projections which are very apt to cut the attenuated parts if not properly watched and controlled. I have not, in what I have written, given any attention to the treatment of those cases in which the great size of the shoulders arrests the delivery before the head is born, for the reason that this branch of the subject has been ably treated by a French gentleman, M. Jacquemier, in an excellent paper published some years ago.

I have spoken of the proper management of the glottis as a means of saving the perineum. Tyler Smith is the only author who dwells sufficiently on the importance of this matter. The more outcry the woman makes at the terminal stage of labor—that is when the head and shoulders are about to pass—the better. The extreme dilatation of the glottis adds to the safety of the perineum by the relaxation of the sphincters which it produces. The woman, therefore, should be encouraged to cry out at this crisis. Her very distress seems to be the means devised to save her from future injury.

Unfortunately, in our times, it seems that more pains are taken to look for injuries to the perineum than to guard against them. The whole system of midwifery formerly taught in the schools, has been reversed by modern practice. The gynecologist appears to have taken the place in a great measure of the obstetrician. Women are now turned up and examined immediately after delivery in the search for lesions of the *genitalia*. I was greatly surprised at a meeting of the Obstetrical Section of the Medical and Chirurgical Faculty, last week, to discover that this practice is the unvarying rule of every member who was present.

Send Recent Cases of Insanity to the Asylum Promptly.—In looking over the "Annual Report of the Eastern [Va.] Lunatic Asylum [at Williamsburg, Va.], for the Fiscal Year ending September 30th, 1881," we find the following remarks by the most excellent Superintendent and Physician-in-Chief, Dr. Harvey Black. They are not full of practical suggestions to the careful and anxious physicians of our State only; but also of equal service to practitioners in all the States. Hence we make it one of the Selections for this month's issue.

After making some remarks and giving some statistics—very creditable to the Institution over which Dr. Black presides, he goes on to state:

There may have been some improvement during the past

year in relation to applications being promptly made for the admission of the recent cases of insanity, but many of the applications were made, for the first time, for those that were chronic, and while I have called attention to the subject in some of my former reports, I may be pardoned for referring to it again, it being a matter of too much practical importance to be passed by without notice.

With few exceptions, the doors of the asylums have always been open for the reception of the recent cases, even to the exclusion of those that were chronic.

The medical officers, both in their written reports and personal intercourse with the public, have been trying to impress upon the community the great importance of securing this timely aid—ready to be extended to the indigent without money and without price, and yet, our records show the many cases of procrastination. According to well established statistics, comparatively many are being consigned annually to lives of mental blight, who, could they receive prompt treatment, would be restored; they and their friends saved from the long and afflictive train of evils consequent upon a life of chronic insanity, and the State from a large percentage of the burden which this condition imposes. This reluctance on the part of friends of the insane to avail themselves of the privilege so wisely and humanely offered by the State, does not arise from indifference to their welfare, nor want of affection,on the contrary, those whose sympathies are most active often hesitate longest. Some urge that they cannot consent to part with their friends, and place them among strangers, under such afflicted circumstances; others, that to deprive them of liberty without their consent would be unjust and incur their lasting displeasure. Again, they point to some sensational article found in the newspapers, reciting instances of unkind and inhumane treatment upon the part of the officials and attendants of the asylum; others, that their surroundings may not be pleasant, or that they may be injuriously affected by coming in contact with other insane persons; again, that so soon as they pass the portals of an asylum, their prospects are blasted for life and reproach cast upon the families never to be removed; and sometimes, though seldom, that they are controlled in their action by the advice of their attending physician.

However naturally or unwittingly these objections may be urged, the indisputable fact stands attested by all those familiar with the subject, that the chances of recovery are inversely in proportion to the duration of the disease.

Dr. Firestone, the former superintendent of the Asylum at Columbus, Ohio, in his report for 1880, says that, "Of the recovered (for that year), 2⅘ per cent. were of those whose insanity was more than two and under five years duration; 27 per cent. over one and under two years; 63 per cent. under one year's duration." While this statement is made but for one year, it accords so nearly with the experience of of asylum superintendents generally, that it may be accepted as a fair illustration of the proportion in which recoveries occur. It should teach an important lesson to those who would interpose objections to the early removal of the insane to an asylum for treatment. An affection that will not submit to a temporary separation to give to an insane friend or relative the most favorable chances of recovery is more zealous than discreet, even though it necessitates a residence among strangers; for it should be remembered that the breaking up of home associations for a time, and being placed under such new relations, is the first important prerequisite for successful treatment. No one should be deprived of his liberty unless clearly insane, and by due process of law, while not to restrain such an one and place him under the most favorable conditions to be restored, is to evade an important obligation. The charges made through the press of neglect and unkindness often do much harm, though rarely beyond worry and annoyance to those whom they are intended to affect. They frequently cause the deepest anxiety to the relatives of the insane, and create feelings of distrust and prejudice against asylums generally. They usually emanate from discharged patients not fully restored, or employees found unworthy the positions they held, sometimes from aspirants seeking positions. While instances of unkindness, and even cruelty, may occur in asylums, as in all institutions, both public and private, and even in private families, yet are they nowwhere more strictly guarded against, more vigilance used to prevent them, or more severe and summary penalties inflicted upon the offenders, than in asylums. Kindness and gentleness are enjoined, and the inmates have all the protection thrown around them that the law, an honorable Board of Directors, well selected attendants, and the dictates of humanity can provide.

As to the association of the insane with each other, few are injuriously influenced thereby, and some are benefited. The acute insane, and those much demented, are but little influenced by any surroundings, while those capable of observing what is transpiring about them, often observe the delusion of

others, and soon disregard them, or become convinced that they too are the subjects of similar vagaries, and endeavor to exercise the self control necessary to correct them; while the pleasure grounds and various amusements, provided for their benefit, divert their minds into other pleasant channels of thought.

The objection of family reproach, to which some are so keenly sensitive, is fortunately being dispelled by the light of reason, and a better knowledge of the nature of the disease. By long and patient research, the pathologist has traced the determinate cause of insanity to disease of the minute cell structure of the brain, as much so as pneumonia to the textures of the lungs, or rheumatism to fibrous tissue. That insanity is hereditary is admitted, but so is consumption, rheumatism, gout, and other diseases. If the testimony of medical examiners for insurance companies were disclosed, it would reveal the fact that it is exceptional to find a person in whose family, either lineal or collateral, there is not some constitutional infirmity transmitted from one generation to another with consequences often much more grave than in families where insanity is found. The insane are simply sick persons, made so frequently by the operation of the same causes which in others with a different diathesis, would result in the development of other diseases; and in recent cases when treated with equal promptness often with as large a percentage of recoveries. Nor does it coincide with the facts that to enter an insane asylum is necessarily to blight the prospects of the individual for life. There are those now living who had this apparent cloud resting upon them while young, who have since lived useful and happy lives, some in humble sphere, others reaching to distinction, and reflecting honor upon their State. Insanity is a misfortune, as are other diseases, but in no proper sense a reproach. When persons are guided by the advice of their physicians as to when they should send their friends to an asylum, their responsibility ceases, and it is placed where it naturally and properly belongs. It is to the medical profession mainly that we must look to properly interest and advise those concerned as to the disposition of the insane, especially at the outset of the attack. Few cases occur in which the advice of a physician is not early sought, and upon his decision and the exercise of a proper degree of firmness in having it carried into effect, often rests the welfare of the patient, and sometimes the future support and happiness of the family. If sent to an asylum as soon as his insanity is clearly ascer-

tained, the chances are about sixty-five in one hundred that he will be restored in less than twelve months, and at an expense not exceeding two hundred dollars to the State, while, if retained at home, the probability is that he will drift into chronic insanity, and finally be sent to an asylum, there to remain the balance of his life, at an expense to the State of two thousand dollars. It is a well-known fact that but comparatively few cases of insanity recover at home, even when treated by the most skillful physicians, an experienced alienist would not meet with much better success under like circumstances. The failure is due to the continuance of home associations, the want of proper means and appliances by which to have a prescribed course of treatment carried out, and no means of making available the moral treatment so essential to success. The chronic insane now in the State have to be cared for as the State can best provide; while the demand for future provision with the number of insane annually increasing can only be prevented from going largely beyond its present limits by the members of the medical profession educating the people to a proper knowledge of this subject, and enforcing their views, as far as practicable, when cases are brought under their professional care.

Treatment of Small-Pox by Salicylic Acid.—Dr. Edwin Rosenthal, acting on the article by Dr. Boyer, has employed salicylic acid in many cases of small-pox with good results. The formula employed by him is as follows:

℞ Acidi salicylici .....ʒ j.
Spts. vini rectificati.....ʒ ss.
Misc et adde, elix. simplicis q. s....ʒ vj.

For the angina of variola, he uses in conjunction therewith the following gargle of xylol, and finds it very satisfactory:

℞ Xylol.....ʒ j.
Gum acaciæ.....ʒ ij.
Aq. menth. pip.....ʒ vj.

M. Ft. emulsio. Sig. Use as a gargle and mouth wash. He confirms the statement that salicylic acid in small-pox reduces the temperature, is sedative, and modifies the eruption.—*Med. Bulletin.*

A Perfect Solvent for Quinine Sulphate.—I was called to see a patient some time ago ill of remittent fever who could not take pills or swallow quinine unless it were made in solution. I was put to thinking of some way to give it, and looking

over my medicine case, the first article I noticed was a bottle of the sweet spirit of niter, and to one ounce of this I added twenty grains of sulphate of quinia, and found, to my surprise, that I had discovered a perfect solvent for quinine sulphate. I use the spirit of niter whenever I desire a solvent, since it makes a beautiful solution, and appears to counteract, in some measure, the nausea which is so often troublesome in fevers. My reliance, however, to counteract neausea and headache in fevers is laid upon the potassium bromide. I generally leave about two drams, directing the nurse to put it in a glass of water and allow the patient to drink small quantities through the day, and especially after each dose of the quinine. I have found this to relieve patients to a considerable extent, if not altogether, of sick stomach, ringing in the ears, etc.—*R. C. Keuner, in Louisville Med. News*

Clinical Urology.—M. Robin reported to the Society of Biology, in Paris, two cases in which the patients suffered from diseases whose differential diagnosis, though very difficult by the ordinary means, was yet rendered easy by an examination of the urine. The first case was that of a boy aged fifteen, who presented obscure typhoid symptoms; the second was a patient of the same age with almost identical symptoms, except that in the latter case there was slight hyperæsthesia and a slow pulse. In the second case there was reason to suppose that the patient might be suffering from tubercular meningitis; examination of the urine resulted in the following observations:—In the first case it was turbid, with a specific gravity of 1-013, and a slight excess of urea and uric acid was present. Nitric acid pourd down the side of the test-tube containing the urine caused a number of superimposed zones to form in the following order: A stratum of uric acid, a transparent zone; a stratum of albumin, and underneath a blue ring due to the presence of indican. In the case of the second patient, the urine had a reddish tinge, was clear, with a sp. gr. of 1-032, and contained a very considerable quantity of urea: neither albumin nor indican was detected on the addition of nitric acid, but urohæmatin was shown to be present. From this difference in the urine, M. Robin diagnosed typhoid fever in the one case, and tubercular meningitis in the other, and post-mortem examination verified in each case the diagnosis. M. Robin states that this difference in the urine exists in all the cases which he has hitherto examined. In typhoid fever indican and albumin are always present, but only very rarely uro-

hæmatin. The latter substance, however, is sometimes present at the beginning of continued fever under certain conditions, such as pulmonary complications, hæmorrhage, facial erysipelas, or when the disease attacks a very robust individual, and assumes an inflammatory type. M. Robin concluded his remarks by stating that the presence of indican in urine affords a very valuable diagnostic sign of typhoid fever, for although we cannot say that the patient is free from the fever because the coloration is absent, yet when it is seen in the urine, he must be said to be suffering from typhoid.—*Le Progrès Médical*, April 2, 1881.

Book Notices, &c.

Practical Treatise on Hernia. By JOSEPH H. WARREN, M. D., Member Amer. Med. Ass'n, etc. Second and Revised Edition. Fully Illustrated. Boston: Jas. R. Osgood & Co. London: Sampson Low, Marston, Searle & Livingston. 1882. 8vo. Pp. 428. Cloth. Price, $5. (For sale by Messrs. West, Johnston & Co., Richmond.)

In view of the notice given in the *Monthly* of the first edition, of the inestimable value of this work, to any surgeon or practitioner who has to deal with a case of hernia of almost any variety, it is needless that we should add more than that this present edition is a great improvement on the former. The author has heeded the voice of friendly criticism of his former work—whether it came from Europe or this country—and has so amended the defects that possibly attached to the first edition as to make the edition now before us as perfect a monograph on *Hernia* as we know of, which has been published in the English language. The author still advocates his special treatment by subcutaneous injections of infusion of white oak bark, and brings forward an array of evidence in support of his special plan which must commend his operation to the studious attention and practice of every practical surgeon. Dr. Warren does not yet appear to despise the operations of other authorities—such as those of Wood, Dowell, etc., which he fully describes; but he presents his own operation—a modification of that first proposed by Prof. James Pancoast, and afterwards modified by Dr. Heaton—with a clearness and with an array of clinical evidence that carries conviction to the reader's mind that a great advance has been made in regard

to the radical cure of rupture, of the several varieties. We can only add, in the language of the notice given in this journal of the former edition, that "This work, while the most recent, is also practically the most valuable contribution to the subject of hernia that we now have. Every surgeon should have the book." It is copiously illustrated, and has a good index. It is also handsomely published.

Photographic Illustrations of Cutaneous Syphilis. By GEORGE HENRY FOX, A. M., M. D., Clinical Lecturer on Diseases of the Skin, College of Physicians and Surgeons, New York; Surgeon to the New York Dispensary, Department of Skin and Venereal Diseases, etc. Forty-eight Plates from Life, Colored by Hand. New York: E. B. Treat. 1881. Royal 4to. Nos. 10, 11 and 12. Price, $2 a Number. Complete in Twelve Numbers. (From Publisher.)

We have taken great pleasure in calling attention to these "Photographic Illustrations" as they have been issued from the press, because we know of no better opportunity that a private practitioner is apt to have to acquaint himself with the appearance of cutaneous syphilis than by study of the work before us. The Plates enjoy the highest commendation of the most expert syphilologists in the country. Professors Van Buren, Keyes, Sturgis, Piffard, etc., speak of them in highest terms of praise, because of their being exact copies from life; and now that the entire twelve numbers have been issued, we could not advise our friends, who have much to do with venereal patients, to make a more profitable investment than to purchase the complete set. The descriptive text reads like a well planned and well delivered clinical lecture. The author, too, is bold enough to advocate some views which will be new to many readers; but his advice is founded on experience and observation, and accords with the suggestions of many of the more advanced syphilographers of the world. The work has been of great benefit to us in our practice.

A Treatise on Diseases of the Joints. By RICHARD BARWELL, F. R. C. S., Senior Surgeon, and Lecturer on Surgery, Charing Cross Hospital. Illustrated by Numerous Engravings on Wood. Second Edition. Revised and Much Enlarged. New York: William Wood & Co. 1881. 8vo. Pp. 463–xv. (For sale by Messrs. West, Johnston & Co., Richmond, Va.)

Although not so stated on the title page, and the price is nowhere given in the book, it is imprinted on the first of the cloth cover pages that this is one of "Wood's Library of Standard Medical Authors." The book is beautifully bound.

We have many times remarked that the publisher or publishers of a book should state the price of the book to be announced. This book is received as the first of the series for this year, and is marked, on the wrapper, No. 3, for "March."

But leaving aside the publishers' unfinished duty to journalists, we find the work before us to be really a most valuable one. It is sufficiently full of detail of cases under most of the chapters to describe the general run of cases as met with in ordinary practice; and the volume is, in addition, properly replete with quotations from, or references to, the experience of standard authors to compel it to be thoroughly *standard*. We notice, however, that in regard to coxalgia, Dr. Barwell has little to say in advocacy of Prof. Lewis A. Sayre's treatment, which has saved more lives and the usefulness of many more legs and lower extremities than any one device yet suggested. In regard to "Pott's disease," we think it dereliction of duty, as an author, that Dr. Barwell does not give a special chapter on the subject and describe "Sayre's method," which, in the last five or six years, has saved so many "hump backs," and restored to health many that had the disease in its incipiency. As, up to the present day, we have not seen any principle or suggestion put into practice that is comparable to that of Sayre, we ought to insist that no author should send out a book on "Diseases of the Joints" that does not incorporate a full description of "Sayre's plan."

There is another general criticism of which the author ought, in a future edition, to relieve himself. There is too much of the *ego*, either in the text or in the foot-notes to make his book pleasant reading. The attention of the reader is, in several places, drawn from the subject under consideration to the author. A little revision of the text for a third edition, will remove any occasion for criticism in this direction.

Transactions of the American Gynæcological Society. Volume V. For the year 1880. Boston: Houghton, Mifflin & Co. 1881. 8vo. Pp. 470. (From Publishers.)

There is no medical society in this country that issues its annual *Transactions* in such handsome style as does the American Gynæcological Society. The present volume, although received over a year after the session of the Society adjourned, is so rich in valuable material that it will be more than usually prized by those who have the former volumes. The address of the retiring President, Dr. J. Marion Sims,

was devoted chiefly to some suggestions of changes in the Constitution and By-Laws of the organization. Dr. Robert Battey, of Rome, Ga., in answer to the question, "What is the Proper Field for Battey's Operation?" says, in effect, that the operation should be reserved for grave cases—when all other means have failed, and only then when it is reasonable to expect benefit from this operation. Dr. George J. Engelman, of St. Louis, contributes excellent papers. We know of no more interesting an ethnological paper than the one on "Posture in Labor." The other paper reports two cases of anterior displacement of the ovary, simulating hernia, for which Battey's operation was performed. Dr. Wm. H. Byford, of Chicago, reports a case of successful extirpation of an encephaloid kidney. Dr. A. Reeves Jackson, of Chicago, reviews the subject of uterine massage as a means of treating certain forms of enlargement of the womb. Dr. R. Stansbury Sutton, of Pittsburg, Pa., reports a case of cataleptic convulsion cured by trachelorraphy. Dr. P. C. Wilson, of Baltimore, Md., reports a case of practical value of ovariotomy during pregnancy with happy results to both mother and child. Dr. Theophilus Parvin, of Indianapolis, gives a highly important paper on "Secondary Puerperal Metrorrhagia," which affliction of the puerperal woman, as most practitioners appreciate, is one of the most perplexing troubles to deal with. Dr. Wm. T. Howard, of Baltimore, reports, in detail, three fatal cases of rupture of the uterus, "with laparotomy." We do not like the title, but the cases, as treated by the Doctor, are full of interest and instruction. Dr. Joseph A. Eve, of Augusta, Ga., reports a rare case, and gives some suggestions on a case of occlusion of the neck of the gravid uterus, which occurred in the practice of Drs. Alfriend, of Sparta, Ga. Dr. James E. Chadwick, of Boston, advocates, in strong terms, the use of hot water douches in puerperal cases of diarrhœa, backache and painful defecation, pain and burning sensations in the abdomen; but this paper requires a fuller synopsis (which we regret we cannot give) than this allusion to it to enable the practitioner to adopt or put to experimental test the suggestions of the author. Dr. Henry F. Campbell, of Augusta, Ga., speaks highly of the "prophylactic and therapeutic value of quinine in gynecic and obstetric practice." This is an admirable review of the whole subject. "Manual dilatation of the os uteri as a means of inducing premature labor," is the title of a paper by Dr. Wm. L. Richardson, of Boston, the reading of which will please those who have long ago adopted

the method, and will be instructive to those who have not heretofore seen the suggestion in print. A paper of much value to the literature of medicine is the one on "Laparotomy and Laparo-Hysterotomy;—their Indications and Statistics—for Fibroid Tumors of the Uterus," by C. D. Palmer, M. D., of Cincinnati, Ohio. After this paper follows a well arranged index; and then follows an "index of gynæcological and obstetric literature of all countries for the year 1879"—in itself a valuable contribution for the benefit of all interested in this special class of medical literature. But, in reference to the papers contained in this volume, there is not one that is not fully worthy of publication, and several of them are full of practical value. We wish we had space to refer to two or three of them more in detail.

Favorite Prescriptions of Distinguished Practitioners, with Notes on Treatment. By B. W. PALMER, A. M., M. D. New York: Bermingham & Co. 1881. 16mo. Pp. 121. (From Publishers.)

This is a very useful, ready reference pocket-book. As its title indicates, it is a compilation of prescriptions by such authors as Drs. Barker, Bartholow, Gross, Flint, Clark, Loomis, Bumstead, Thomas, H. C. Wood, Goodell, Fothergill, N. S. Davis, Sims, Byford, Janeway, Da Costa, Cohen, Clymer, J. Lewis Smith, Thomson, Brown-Sequard, Pallen, Hammond, etc. It is just such a little pocket companion as the intelligent practitioner often wishes he had with him for immediate consultation. The index shows that prescriptions are given for over 200 diseased conditions. In addition to the prescriptions, and the instructions to the pharmacists as to how to compound the medicines, every here and there some useful suggestion is given the practitioner as to how to direct their use.

Treatise on the Continued Fevers. By JAMES C. WILSON, M. D., Physician to the Philadelphia Hospital, and to the Hospital of the Jefferson Medical College, etc. With an Introduction by J. M. DA COSTA, M. D., Professor of Practice of Medicine and of Clinical Medicine at Jefferson Medical College, etc. New York: William Wood & Co. 1881. 8vo. Pp. xxiij–365. (For sale by Messrs. West, Johnston & Co., Richmond.)

The author includes under the head of "the continued fevers," "simple continued fever," "influenza," "cerebro-spinal fever," "enteric or typhoid fever," "typhus fever," "relapsing fever" and "dengue." By "simple continued fever," the author refers to "a continued fever, not due to

specific cause, usually of short duration, lacking the distinguishing characteristics of the other fevers, rarely fatal in temperate climates, and showing, when death occurs, no characteristic lesion." "It is probable that they are not of non-specific origin in most instances, but that, by reason of the smallness of the dose of the fever—producing poison, or an imperfect susceptibility on the part of the individual, the specific fever is of such mildness that its characteristic phenomena are not made manifest—it is, in other words, 'abortive.'" Such a fever has often been met with by practitioners, and it is well that Dr. Wilson has given it the attention he has in the first chapter. All the other fevers are familiar to general practitioners by name as well as by description, unless it be dengue, which is limited mostly to the Southern States. By "cerebro spinal fever," the author refers to the disease more generally known as "epidemic cerebro-spinal meningitis." The introductory chapter by Dr. Da Costa is on the "management of fever" in general. This chapter is written with the usual accuracy for which the author is so well known in all his writings. The book itself is another of the series of "Wood's Library of Standard Medical Authors."

Medical Formulary, based on the United States and British Pharmacopœias, together with numerous French, German and Unofficial Preparations. By LAURENCE JOHNSON, A. M., M. D., Lecturer on Medical Botany, Medical Department University City of New York, etc. 1881. Pp. 402–vii. (From Publishers, per Messrs. West, Johnston & Co., Richmond.)

This book, were it issued out of the series of "Wood's Library of Standard Medical Authors," we would advise neither practitioner nor student to buy—there are so many books treating of "medical formulary" and of therapeutics that are better. The *United States Dispensatory*, as well as the Dispensatory by *Stille and Maisch*, are better and fuller, It is numbered "5" in the "Series" of the publishers for this year.

Transactions of the Thirtieth Annual Meeting of the Illinois State Medical Society, 1880. (President-elect, Dr. George Wheeler Jones, Danville; Secretary, Dr. S. J. Jones, Chicago). 8vo. Pp. 228.

This is a beautifully issued volume, bound in cloth, the cost of which is not stated; but by reference to the Treasurer's report for the preceding annual volume, which has

about the same "make up," as the printers style it, the cost for 350 copies was $466.24; for wrapping same, $3.00; postage on Transactions, $36.00—total, $505.24.

After an address of general medio-literary interest by Hon. Wm. H. Snyder, Dr. E. Ingals, of Chicago, the retiring President, delivered the President's Annual Address, which is of general professional interest. Dr. W. S. Caldwell, of Freeport, made a good report on practical medicine, compiled from correspondence with physicians of only the Northwestern section of the State. Dr. B. F. Crummer, of Warren, contributed to the report some remarks on diphtheria, pneumonia, pleuritis with effusion and cancer of the stomach. Dr. F. B. Haller, of Vandalia, gave a report of an epidemic of mumps. Drs. E. W. Lee and Christian Fenger, of Chicago, furnished a well compiled paper on tracheotomy in croup and diphtheria, with cases. Dr. Lee has operated 17 times, with 11 deaths and 6 recoveries; Dr. Fenger has operated 5 times, with 2 deaths and 3 recoveries. Total cases, 22; recoveries, 9; deaths, 13. These cases are tabulated. Dr. F. H. Davis, of Chicago, made an excellent report on inhalations in the treatment of pulmonary diseases. Dr. Wm. Hill, of Bloomington, reported on surgery—his subject being antiseptic surgery, extirpation of the kidney, cancer of the rectum treated by excision, rodent ulcers and epithelium cancer, osteotomy, resection of the tarsal bones for talipes varus and fracture of the patella. Dr. Fred. Cole, of El Paso, made a report on conservative surgery as illustrated by a case of compound dislocation of the ankle-joint, and a case of crushed foot by a railroad accident. Dr. J. G. Harvey, of Grove City, presented an instructive paper on herniotomy and extirpation of the parotid gland, with cases. A description with a wood cut of Dr. Verity's "*universal* suspension of splint," comes next in order. Dr. G. W. Nesbitt, of Syracuse, presented the report of the Committee on Obstetrics, and a very good report it is too. Dr. J. W. Fink, of Hillsboro, contributes to the report some cases of "maternal impression." Dr. E. L. Herriatt, of Jacksonville, reported in advocacy of anæsthetics in labor. Dr. Lucinda H. Corr, of Carlinville, reported on the relative value of the symptoms of neurasthenia as such, and the remote symptoms of uterine disease—a first-rate paper. Dr. W. T. Montgomery, of Chicago, reported on ophthalmology and otology, to which report Dr. J. M. Everett, of Dixon, contributed a paper on the treatment of various forms of conjunctivitis by Knapp's method of cold applications. Dr. H. Z. Gill, of

Jerseyville, after discussing the identity or non-identity of membranous croup and diphtheria, comes to the general conclusion that there is no tangible distinction. Next is added the conclusion of a list (reported in part in 1879) of cases on which tracheotomy has been performed for croup or diphtheria. Total cases, 129; recoveries, 36; deaths, 93.

Editorial.

The Twelfth Annual Session of the Medical Society of Virginia convened at Old Point Comfort, Va., on the evening of October 10th, 1881, in the Ball-room of the famous Hygeia Hotel, which hotel is under the magnificent management and proprietorship of Mr. Harrison Phœbus. Everything in his power to make the entertainment of his visitors pleasant is always done; and during the three days of the session of the Society, every effort of his was put forward to render the meeting harmonious and pleasurable. Mr. Phœbus did his part well and handsomely. He showed himself to be, "in the olden" sense, a whole-souled "*Virginia gentleman.*"

The attendance upon the session was about forty Fellows. This comparatively small attendance was to have been expected, as this was the Yorktown Centennial year. It was a matter of regret, on the part of a majority of the members, that, this year, they could not attend the Society at either place—the place appointed at the Danville session last year (which was Warrenton, Va.), or at Old Point Comfort. Many who voted to change the place of meeting to Old Point, stated that under no circumstances could they attend at Warrenton this year, as they had made their plans to witness or participate in the Centennial celebrations, either at Yorktown or in Richmond. Old Point was selected because of its nearness to Yorktown, and the time selected was the beginning of the week (Monday) preceding the time when the "Yorktown Celebration" was to commence. If the place of meeting had not been changed this year, it is doubtful whether or not there would have been much more than a quorum at Warrenton, which was 150 or more miles away from the great centre of attraction at that time. These facts, taken in connection with the fact that there are no resident members of the Society at Old Point—that the nearest point where there are private practitioners is Hampton—remove any ground for surprise that the attendance was not as large

as was desirable. On one or two occasions, however, when there has been no special general attraction, the attendance has been but very little larger. The attendance upon no recent session has been much more than twenty-five per cent. of the recorded membership.

The session was opened with prayer by Rev. O. F. Herrick, Chaplain at Fortress Monroe; then followed a cordial welcoming address by Col. S. S. Elder, also of Fortress Monroe.

On motion, the officers of the Post were invited to attend the meetings of the Society, and the Medical Officers of the Post, Dr. Charles Page, Surgeon U. S. A., and Dr. John V. Hoff, Assistant Surgeon, and Dr. George H. Marmion, Surgeon to the Soldiers' Home, were invited to participate in the deliberations of the body.

The Society then went into executive session, receiving reports, etc. Some twenty-five new members were enrolled.

On the second day, several valuable papers were submitted, besides the valuable contribution to medical science—the "Address of the President," Dr. Hunter McGuire, of Richmond, on *Cancer of the Breast.* Several other papers of practical importance were presented. Among them may be mentioned the papers by Dr. Otis F. Manson, of Richmond, on "The Physiological Action and Therapeutical Uses of Quinia and its Salts," which was referred to the Committee on Publications; Dr. Christopher Tompkins, of Richmond, "Report on Advances in Anatomy and Physiology," which was referred to the Committee on Publications: Dr. Meade C. Kemper, of Goshen, Va., "Report on Advances in Surgery," which, after being read in full, was ordered to be published; Dr. Bedford Brown, of Alexandria, Va., "Report on Advances in the Practice of Medicine," which was also ordered to be published; Dr. James A Alexander, of Broadway, Rockingham county, Va., on "Abscess of the Liver—Reporting a Case;" the President-elect, Dr. G. Wm. Semple, of Hampton, read a paper on "Some Unnoticed Effects of Chloroform on Deglutition, and Observations on the Advantages of a Solution of Hydro-Bromate of Quinia for Hypodermic Use;" Dr. Joseph A. White, of Richmond, Va., presented two papers relating to his specialty—Eye, Ear and Throat—which were referred to the Committee on Publications; Dr. L. D. Ashton, of Falmouth, Va., made a verbal report of a case of "Abscess of the Liver," which he was requested to write out for publication; Dr. Hunter McGuire, of Richmond, also made a verbal report of two "Cases of Ovariotomy," which he was requested to write out for publication.

There were several other papers or verbal reports made which have not been referred to, and which, at this writing, have escaped our memory; but these reports will, no doubt, be acted on favorably by the Committee on Publications. We shall make further reports regarding these matters, in the editorial columns of our December issue.

These papers will, most probably, be approved by the Committee on Publications, and hence will probably appear in the forthcoming volume of *Transactions*.

During the session of the second night, Dr. G. William Semple, of Hampton, Va., was elected President of the Society, and, according to the usual observances of the Society, the President appointed a committee of thirteen to nominate the other officers for the ensuing session.

The Committee on Nominations recommended the following named gentlemen as the officers for the Session of 1881-2—exclusive of the President, Dr. G. Wm. Semple, already named as the President, elected by ballot:—*Vice-Presidents*, Drs. W. L. Robinson, of Danville, W. D. Cooper, of Morrisville, J. S. Apperson, of Town House, Wm. B. Gray, of Richmond, T. James Taylor, of Walton, and S. B. Morrison of Brownsburg; *Recording Secretary and Treasurer*, Dr. Landon B. Edwards, of Richmond. Dr. Charles S. Brittan, of Richmond, was apointed Assistant Recording Secretary. Dr. M. M. Walker, of Richmond, was elected *Corresponding Secretary*, but declines to serve any longer than the Executive Committee can appoint a successor. *Committee on Nominations*, Drs. Meade C. Kemper, of Goshen, Isaac White, of Alleghany, G. McDonald, of Union, W. Va., H. M. Nash, of Norfolk, and Cyrus McCormick, of Berryville. *Executive Committee*, Drs. W. W. Parker, of Richmond, Harvey Black, of Williamsburg, F. D. Cunningham, of Richmond, J. H. Claiborne, of Petersburg, and L. Ashton, of Falmouth. *Committee on Publications*, Drs. E. T. Robinson, C. W. P. Brock and George Ross, of Richmond. The Executive Committee will have some work to do during the year in making some appointments, and in arranging the time of next meeting, etc.

The report of Dr. Fred. Horner, of Salem, Fauquier, as chairman of the "Committee on the Organization of a Medical Aid Association," appointed last year, was read, and after some discussion was referred to a committee consisting of Drs. J. M. Estill, of Tazewell C. H., S. K. Jackson of Norfolk, and F. D. Cunningham, of Richmond. This Committee, while approving the objects and plans proposed in Dr.

Horner's report, did not recommend any action on the part of the Society other than a general endorsement of the objects and of the proposed plan, "leaving their future adoption or application to the choice or desire of the individual members." This report was adopted.

On presentation by Dr. O. F. Manson, of Richmond, it was "*Resolved*, That a committee of five Fellows be appointed by the chair to petition the Legislature for the establishment of a Board of Medical Examiners of the State of Virginia—the said Board to be elected by the Medical Society of Virginia. The President will announce this committee in a few days.

After the election of President, Dr. Hunter McGuire, of Richmond, the retiring President, was elected an Honorary Fellow of the Society.

During the third day, Dr. Hunter McGure, after recounting certain statements published by Dr. C. A. Bryce against the Committee on Publications, accusing them of fraud in the publications of the *Transactions* of the Society, etc., moved his expulsion from Fellowship with the Society. He stated that Dr. Bryce had frequently repeated these accusations, and had sought to bring the Society into disrepute with the profession. Some of the profession, indeed, had been prevented from joining on account of these uncorrected statements.

It was found, however, that the Constitution of the Society required two months' notice be given before a Fellow could be tried; and after some discussion, Dr. McGuire adopted a suggestion made by Dr. Henry Latham, of Lynchburg, to appoint an investigating committee into the conduct of Dr. Bryce regarding his printed charges against the Committee on Publications, of which the Editor of this journal happened to be one, *ex officio*. The motion of Dr. Latham having been carried, the President (Dr. Semple) appointed the following Committee of Investigation: Drs. W. R. Winchester, of Leesburg, Loudoun county, Va.; Bedford Brown, of Alexandria; Samuel B. Morrison, of Brownsburg, Rockbridge county; D. C. Pharr, of Gap Mills, Monroe county, West Virginia, and Meade C. Kemper, of Goshen, Rockbridge county, Va.

During the afternoon's session, the committee made the following report:

"The undersigned, members of your Committee appointed to investigate the action of the Committee on Publications in relation to the allegations of Dr. Bryce, made recently

through the *Southern Clinic*, do find that the conduct and course of the gentlemen composing the Committee on Publications, according to all of the evidence which we have been able to collect, is unblemished and untarnished; that they have acquitted themselves honorably and correctly in all respects, and that the thanks of the Society are due them for their honorable and faithful labors.

We do furthermore find, that after a free and full conversation with Dr. Bryce, he expresses himself as having labored under false impressions in regard to the conduct of the Committee on Publications, and that he is willing to withdraw all allegations touching the honored character of the gentlemen."

After some discussion as to the wording of the report, Dr. Bryce finally agreed to accept and circulate it; and then, on motion, the report of the Committee of Investigation was approved by the Society.

Soon afterwards, Dr. Bryce offered his resignation of Fellowship, which was unanimously accepted.

Dr. Otis F. Manson, of Richmond, Va., during the afternoon, made some very striking, although *impromptu*, remarks on the subject of *Cholera Infantum*, which will, no doubt, be published as a paper in full in the forthcoming volume of *Transactions*.

The next meeting of the Society will convene at the Fauquier White Sulphur Springs, in Fauquier county, Va., on the line of the Virginia Midland Railroad. The "Springs" are a few miles removed from the railroad; but we are pledged, in advance, that ample accommodations will be afforded to all who may wish to attend.

Small-pox has been prevailing to some extent in this city since June. Very exaggerated reports have got into circulation as to the number of cases. Almost all of the better class of the community have been vaccinated or revaccinated, until now there is no apprehension on the part of such citizens as to the spread of the disease. Twice this year, the city has been districted and vaccination physicians appointed by the City Board of Health for the poorer classes. The City Council, some month or so ago, because of the fact that many of the humbler classes, either from ignorance or superstitious notions, refused to avail themselves of the benefits of vaccination as offered them by the Board of Health, passed a "compulsory vaccination act;" but this enactment of the City Council was vetoed by the Mayor, whose veto

was sustained by the City Attorney. There are times when strong measures should be adopted; and we are in favor of the compulsion of vaccination under such circumstances as now exist here; and we therefore call on the City Council to reaffirm the ordinance, the Mayor's veto to the contrary notwithstanding. We already have in our city the strongest corroborative evidence of its value in the fact that among the six thousand children belonging to the Public Schools, representing all classes, not one child attending the schools have as yet been attacked, and this is undoubtedly due to the compulsatory vaccination feature of the school law. This fact alone is enough to prove not only the value, but also the absolute necessity of such a provision; and other cities, such as Chicago, New York and St. Louis have already protected themselves, and why should not Richmond also?

There are, at this writing, not more than 72 cases—if, indeed, so many—of small-pox and varioloid in Richmond—including the cases in the Small-pox Hospital, as well as those in private quarters. From first to last, of the present epidemic, the disease has been almost confined to the negroes and lower white population. But now, even these elements of the community are having their eyes opened to the necessity of vaccination, and are either submitting themselves to the advice of their family physicians, or else are crowding the offices of the public vaccinators. There need be no longer any apprehension as to the further material spread of the disease.

Singular to say, neither small-pox nor varioloid seems to have extended much beyond the city limits. In Manchester, just across the James river, where many of the business men and laborers in Richmond reside, there have been very few cases. In Petersburg, only twenty-two miles distant, with a population of about 20,000, and between which city and this there are several daily communications, as also frequent exchange of heavily crowded excursion trains, there has not as yet been a case. But the citizens of Manchester and Petersburg generally have manifested a wise conservatism by seeking vaccination.

If there were doubts in the minds of any in this community heretofore as to the protective value of vaccination, such doubts can no longer have foundation. But another equally valuable lesson learned by some is, that vaccination is not a protection for a life period in many cases. Revaccinations, at short periods—even every three or four years—is a prudential measure to be adopted in well regulated families.

Some of the patients who have had even severe cases of varioloid, during the present epidemic, claim to have been, and give evidences of having been, successfully vaccinated only five or six years ago. Repeated vaccinations every four or five years are not apt to do harm; failure to be as frequently revaccinated may result in great injury to a community as well as to the negligent individual.

This seems to have been an epidemic year for small-pox in many sections of the United States. Let those communities which have not been afflicted take warning, and *at once* submit themselves to vaccination and revaccination. Such a course, if adopted at once, will render it wholly unnecessary to think of quarantines.

Physician's Visiting Lists for 1882.—As the time draws near for the selection of a "*visiting list*" for the incoming new year, it may interest our readers for a notice of the four we have received up to this date for review, so as to allow them to select for themselves the one they prefer. Nine times in ten, it may be safely said, that every physician has his own "cranks" on this subject. We have known good practitioners who were also good business men—that is, who kept their accounts accurately, and who made money too by keeping simply blank memoranda books in which to make entries, prefer this old-timed usage. We know of an eminent practitioner in this city who makes money, too, by the practice of medicine, who keeps simply a piece of paper, or else an "erasable pocket slate," on which he makes his daily entries, which he hands over to his book-keeper at night for entries in his old fashioned mercantile ledger at night. But we cannot understand these things as a practical experience. Surely such practitioners either have a "hobby," acquired from their fathers, or else they are remarkably energetic in business, or else have much time to spare for business work. Saturday night is usually a quiet time with most practitioners--perhaps because they try to finish up all of their work on Saturdays, so as to save Sundays for charity work chiefly, and to get their "Sunday afternoon's nap."

But leaving this line of talk, first of all, is the oldest "Physicians' Lists" now before us. This is the one issued by Messrs. Lindsay & Blakiston, of Philadelphia. Their "List" for 1882 will be the thirty-first year of its publication. It contains an almanac for 1882 plus one for six months in 1883. It has, in addition, the following features: Marshall Hall's Ready Method in Asphyxia; Poisons and Antidotes; the

Metric or French Decimal System of Weights and Measures as prepared by Prof. Oscar Oldberg, Ph. D., of New York; a Posological Table, in which the Doses of Medicines are expressed in terms of both the Apothecaries and the Decimal Metric System, which covers 14½ pages; then comes a half page of a Table for Calculating the Period of Utero-Gestation. After this comes the Visiting List itself, which is well arranged, either for 25, 50 or 100 patients per week, according to the practice or price that suits the patient. Those who order a book for 100 patients a week, have to get two books a year, that is, one for the first six months, and then one for the next six months. This "List" includes the months with dates, with space for the names of patients, the days of visit made or to be made during the week; then are inserted blanks for "general memoranda"; next are blanks for "addresses of patients and others;" then blank pages for "nurses' addresses;" then blank pages for "bills and accounts asked for;" then follows blanks for "memoranda of wants"—blank pages which, if properly filled up, would be found very full at the end of the year; after which are a few pages on which to note "obstetric engagements;" then follows a few pages for "vaccination engagements;" next are a specially large number of pages for "obstetric cases," which would be more appropriately arranged if they were placed next to the heading of "obstetric engagements;" after this is a "record of deaths." A few pages for "general memoranda" concludes this "List."

The "Physician's Hand-Book for 1882" is the next in order of age of publication. It is issued by Mr. W. A. Townsend, of New York city. The preface states that this is the twenty-fifth year of its publication. It is fuller of printed matter than any of the four on our table. It begins with a brief description of diseases of "absorbent vessels and glands;" then follows the "functional and nervous diseases of the air passages," diseases of the "blood and blood-vessels," diseases of the "bowels" and of the "stomach," diseases of the "brain and its membranes," "breast" diseases, "inflammatory and organic diseases of the heart," "functional or nervous diseases of the heart," "diseases of the arteries," "diseases of the veins," "hæmorrhages," "constitutional diseases," "cutaneous diseases," diseases of the "digestive and absorbent systems," diseases of the "eye and ear," "diseases of the general system," diseases of the "liver and its appendages," "diseases of the lungs and pleura," "midwifery and the diseases of women," "diseases of the

nerves," diseases of the "reproductive organs—male," diseases of the "spinal marrow and its membranes," "diseases of the spleen," "diseases of the stomach," "diseases of the urinary organs," "emergencies and their treatment." Then follow a list of "poisons—their symptoms and treatment." Then follow some seven or more pages on the "diagnostic examination of the urine," a brief statement of the average frequency of the pulse at different ages in health; then a "list of incompatibilities;" then "formulas and doses for hypodermic medication," then "doses for inhalation," then "medicinal weights and measures"—both English and French standards; then "abbreviations and definitions of the properties of remedial agents," then some forty-one or more pages of a "list of remedial agents" of the materia medica, then an "index to remedial agents," which covers over five pages, then explanation of the "art of writing extemporaneous prescriptions," with numerous examples, then explanatory remarks regarding the "record of practice," which "record" is a blank "visiting list" arrayed, first, alphabetically, with "names and addresses," with "date of commencement and termination of treatment." The printed matter preceding this portion of the book covers 135 pages. The pages included under the head just given include from page 136 to 171. The "record of practice" is for 68 patients weekly during the year. This portion has columns for "No.," "Patient," each day of the week as well as month, "Am't.," "Prescription." The space for recording the name of the patient is only $\frac{5}{8}$ths inch, and that for the record of the prescription is $\frac{3}{4}$ths inch. Such spaces do not allow the pencil entry (as almost all doctors use lead pencils) of such short names as "J. Jones" in the columns for "patients," nor such a short-named prescription as "P. Aloe, gr. j.," in the column for "prescription." This department of the book includes pages 172–277. Then follows a page for obstetric engagements, and then a few pages for obstetric record, with a "diagnostic record" for each month; then a half page for each month of the year is assigned to general memoranda. "A cash record" of four pages finishes this *multum in parvo*, bulky visiting list of 314 pages, which "hand-book" measures about 6 inches in length, $3\frac{3}{4}$ths inches in width, and fully $\frac{5}{8}$ths inches in thickness. It is truly a book to be carried in the hand or in a satchel. In length and width it is about the size of the "List" previously mentioned, but thicker.

We take up next the "Physician's Memorandum Book"

arranged by Joel A. Miner, who is also the publisher. This is the "Fifth Improved Edition," with Clinical Columns and Ledger Sheet. It may be ordered direct from the publisher, whose post-office is Ann Arbor, Mich. It measures in length 6¾ths inches, by 3½ths inches in width, and about ⅜ths inch in thickness. It begins with an almanac for 1882 and 1883. A "list of medicines and doses" comes next. Then follows the usual table for "calculating the period of utero-gestation." After this is given "Sylvester's Method" for artificial respiration. "Metric tables—weights and measures" come next; then "poisons—general remarks." After this is a "list of diseases and the medicines used in their treatment," which covers five pages, and is, of course, in no manner complete, even as to the index of ordinary diseases. "The analysis of the urine and its clinical significance," is the last section of printed matter. Then follows the visiting list, with the printed headings, on the left hand page, "Week beginning ———, 188 , No. of week ——, Record for the week, under which are nicely ruled lines for the names of the patients visited during the week, with a column also for "*debits.*" The right hand page contains headings for residence, member of family visited, with columns for noting respiration, pulse and temperature, as well as credits or receipts. From the printed headings, however, it seems that this book has been specially arranged for homœopathic practitioners. After this department follow blank pages for "addresses, engagements, things lent;" then comes the "ledger sheet or general memoranda;" then blank pages for "special memoranda;" then blanks for "death record," as also other blank pages for "obstetric record," "obstetrical engagements," and for "cash account."

"Walsh's Call-Book and Tablet" is the last of the visiting lists to be noticed, but it is the one we have used as a visiting list for individual use for the past three or four years. It begins with a calendar for 1881 and 1882. Then there is a "table of number of drops in a fluid drachm," after this is a "table for regulating the doses of medicine for children," which is a "table of common abbreviations." Then follow, in regular order, quite a full list of "poisons and their antidotes," "formulæ and doses of medicines for hypodermic injections," "formulæ and doses for inhalation," "formulæ for suppositories for the rectum," "pessaries," "periods of eruption of the teeth," "table of quantities not to be exceeded in prescriptions without the use of the caution mark (!), to indicate that the prescriber is aware of the unusual size or fre-

quency of the dose"—a table which should be well understood in every community where there is a pleasant relationship between the druggist and the practitioner. Then there is a list of "disinfectants;" after this is an "obstetrical table;" next, a page or two is given to a "diagnostic examination of the urine." Directions for making post-mortem examinations" follow the last mentioned section. "Medico-legal examinations" is a brief but useful section. The usual directions are given for the "treatment of asphyxia from drowning, etc." Then is appended a "list of important incompatibilities." A statement of the number of beats of the pulse per minute according, to the age of life, is given. "Conversion of the apothecaries' weights and measures into metric terms," is the subject of the next section. After this is a "posological table, including the United States and British Pharmacopœias, and several non-official remedies in general use." This is an excellent feature. A "list and dose of *new* remedies," which is given separately, should have been included under the alphabetical arrangement of the posological table, for convenience of reference, since the doctor who wishes to look hurriedly for the dose of apiol or chloroidine, as he passes from the parlor to the sick room would naturally look at the alphabetical arrangement of all the medicines given in the "posological table" A page is devoted to a "table for calculating the number of doses in a given recipe, etc.;" and then the printed matter, of only 30 thin pages, concludes with a statement of the "mean time of digestion of the different articles of diet" Then follows the visiting list proper—with blanks on the left hand page for the names of patients, their residences, with columns for the dates of visits, etc.; on the right hand page are ruled lines for amounts due or paid, and for general memoranda. After a sufficient space for such entries for most general practitioners, are three or four blank pages, properly headed, for "obstetric records." Two blank pages are given for entries of vaccination engagements. A blank "death record" succeeds, after which is a page intended for "nurses' addresses." Blank pages are left for "amount of practice during the year 188—, "Monthly receipts and expenditures, 188—," "debts," "borrowed and loaned," "farm, daily and other accounts," and for "cash received." Notwithstanding the completeness of this "call-book," only some 30 pages are taken up with printed matter. Its size is the most convenient of any we have seen for the coat pocket, as it measures $7\frac{1}{2}$ inches in length; $4\frac{1}{8}$ in breadth and not quite $\frac{3}{8}$ths inch in thickness. In addition, this last

contains an erasible lead-pencil tablet, the value of which can be appreciated only by those who have used it for all sorts of temporary memoranda.

Having given these full notes of the contents of the several "Lists," we shall leave the selection of the one desired by our readers to their individual choice. We have no prejudice against any of the four named. Personally, we can use but one at a time, and we have simply expressed our personal preference, or, at least, stated the one which we, individually, use for a call-book.

Celerina is a preparation of celery, coca and viburnum combined in an eligible manner, and is useful as a nerve or brain *tonic*, and is recommended also for the cure of the opium habit. The general professional testimony of those who have used it seems to be that "celerina" is specially useful in cases of nervous exhaustion, whether arising from mental overwork, too great nervous depression from physical labor, sexual debility, etc. We say this much at present simply to call the attention of practitioners in this section particularly to this tonic, which has strong recommendations from many of the Western physicians who have used it for some time. It is prepared by Mr. J. C. Richardson, chemist, St. Louis, Mo., who requests reports of cases treated by *celerina*. See his advertisement in this number of the *Monthly*.

Contra Contrarius Curantur —Admitting that Thessolus originated the system termed "Meta-synocrisis," it does not properly represent the system of practice adopted by the *regular* profession—the so-called "allopathists." It is a false representation of the tenets of the regular profession to state that the belief and practice of the controlling men of their school is to produce "an entire change in the state of the body, * * regulating or removing morbid conditions." This system is assured to be "the law of cure" of the so-called "allopathists," as opposed to all the "close corporations" in the practice of medicine; and this statement is believed by some to be simply "curing by contraries." We are willing to admit that there are some in the "regular profession" who are so ignorant of the differences between their own profession and the limited bigotry of other schools as to be willing to concede the theory—used tauntingly against us in the beginning—of *contraria contrariibus curantur*. We have recently heard of some very amusing discussions between doctors of

different schools of practice, and while the advocates of our own belief were perhaps the victors, it was evidently, from the nature of their discussion, due to the fact that "our man" had a little more native sense than the other fellow.

To those of the regular profession who do not understand the differences between the several so-called "schools of practice," we wish to give a word of advice. Do not undertake discussions with those who differ in opinion as to their "systems" of practice from other doctors; for if even the "upper-hand" is got because of the ignorance or weakness of the opponent, something ridiculous in the form of explanation may be said. Some may ignorantly assert that ours is a profession that advocates the idea of "Regular producers of another affection," and that, *for this reason*, an internal inflammation must be cured by producing an external one; and hence, if a party be poisoned by malaria, cure it by the use of calomel or arsenic. The word of advice, in answer to the foolishness of this ignorant assertion, is either to "answer a fool according to his folly," or else reply that the "regular profession" recognizes only those means or methods *which promise cure to the patient*—whether the agents to be administered be ordinarily given in large or small doses; whether or not they are generally considered to be agents of no therapeutic importance, or of even toxical effect. Whether or not it be a drop of water or a pellet of cobwebs, *if it cures* the disorder, it is the remedy to be used. In other words, remember that the "regular profession"—the mis styled "allopathists"—have a legitimate right to use *anything* in the treatment of disease that experience, observation or experimentation has proven or even rationally suggested to be curative.

Physician's Practice for Sale.—A prominent physician in one of the northwestern counties of Virginia wishes to dispose of his home and his practice of several hundred patients. Two thousand dollars cash would buy him out. For further information, address "A.," in care of this office.

Dr. J. Marion Sims, we regret to learn, has deemed it prudent, for his health's sake, at the suggestion of his physician, Dr. Alfred L. Loomis, of New York, to return to Europe for the coming winter. He will remain in the southern portion of France for the time being; but those who may wish to correspond with him can do so by letters addressed to him to No. 12, Place Vandome, Paris, France. From a personal

letter received from him only a few days ago, we rejoice to be able to state that his health has greatly improved, and that, with present indications, he will be able to resume active practice at his home in New York next spring. Let it be the prayer of all who recognize and appreciate genius and goodness of heart that this great leader in the profession may be fully restored to the full vigor of health. While not authorized to say as much, we are informed from another quarter that the publication of his book has been prevented by his late feeble health. If the profession should lose this publication, it would suffer an irreparable loss.

New England Medical Monthly is the title of a first rate new medical journal, which began in October, 1881. It is published in Newtown, Conn., and is edited by Dr. William C. Wile. The pages are about the size of those of the *Medical Record*, *Medical and Surgical Reporter*, *Medical Times*, etc., double columns, 48 pages to each number, and the price per annum is only two dollars.

Obituary Record.

Dr. P. H. Lightfoot died, after an illness of only a few days, at his home in Petersburg, Va., September 30th, 1881. He was a graduate of only a few years ago of the Medical College of Virginia, but in the short professional life he had, he had won for himself a reputation as a worthy and able practitioner—a reputation which any might envy. He was smitten by the hand of death when there seemed to be, in the eyes of man, a bright prospect for eminence in the profession. We mourn his loss. He married a daughter of the eminent physician of this State, Dr. John Herbert Claiborne, of Petersburg. He died while young, but the large circle of friends he had won in the profession of the State and in the community in which he resided will ever remember him as the generous hearted, true and brave physician, whose place will be hard to fill. He was an active member of the Medical Society of Virginia, as also of his local Society, and although he had contributed but one or two short papers to medical literature, his reticence, in this particular, was due more to a modesty which is sometimes peculiar to young men who have every mark of true greatness. We feel this affliction caused by his unexpected death the more because there are but comparatively few of his worth to the profession left to build it up.

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Original Communications.

ART. I.—**Arterio-Venous Aneurism.*** By E. L. KEYES, A. M., M. D., Honorary Fellow Richmond Medical and Surgical Society; Adjunct Professor of Surgery, and Professor of Dermatology in Bellevue Hospital Medical College, etc., New York, N. Y.

In January, 1880, a young man, sent by Dr. F. G. Stanford, of Columbus, Georgia, presented himself to Dr. Van Buren, demanding an operation for a swelling upon his leg, which, he said, disabled him. The patient, whose age was twenty, looked like an overgrown boy. He was tall, thin, with a muddy complexion, containing not a few pimples of acne. His lips were blue; his hands cold and rather livid; his circulation somewhat rapid, but feeble. His functions were properly performed, and neither in his history nor by physical signs did he show evidence of any organic disease. His digestion was not vigorous. One year previously he had been shot in the right leg—the ball, a small one (No. 42 Smith & Wesson) discharged at short range—not over ten feet—having entered the lower part of the popliteal space, passed slightly downwards and outwards, and emerged on the outer side of the leg. Bleeding at the time is stated not to have been very profuse. The patient grew pale but did not fall. The leg was bound up. No after hæmorrhages occurred, and the patient was walking about on crutches in three

* Read before the Richmond Medical and Surgical Society and, by request of the Society, published in the *Virginia Medical Monthly*.

weeks. In five weeks the wound had healed with but little suppuration. After this the limb always felt weak. Three or four months later, after exercise, a swelling was first observed in the leg at the seat of injury.

During the spring of 1879, about five months after the injury, the patient first noticed an inconvenient feeling of pulsation in the limb. Since observing it, the pulsation had become much more obvious. Exercise invariably caused pain and a general feeling of weakness, and although the patient stated, at the time of his examination, that he could walk two miles without serious inconvenience, yet he found that the lump was growing and that he was losing ground, and felt so hampered by his infirmity that he had determined to seek an operation for its relief.

On physical examination, the right leg was found to be considerably larger than its fellow (the hypertrophy of Duménil and Giraldes) in all its measurements except length—measuring about two and a half inches more in circumference around the lower part of the popliteal space. The other circumferential dimensions of the leg were all greater than similar measurements upon the sound side.

The hairs were not longer or more abundant on the affected side, as they sometimes are (Broca). The leg was cold and of a dusky color. All the superficial veins were enlarged. A tense but fluctuating tumor, apparently as large as a good size orange (flattened), occupied the lower part of the popliteal space, shading off in all directions. The contents of this tumor could be squeezed out by firm pressure. The tumor visibly pulsated in an expansive manner, synchronously with the pulse beat. An intense purring thrill could be felt and heard, not only over the tumor, but also over all parts of the leg and of the thigh. It ceased during compression of the femoral artery. Faint pulsation could be detected in the posterior tibial artery of the affected side. A diagnosis of arterio-venous aneurism was made, and an operation was determined on at the earnest wish of the patient, who, however, *declined amputation in any event.* Several weeks were occupied in attempting to build up the patient with tonics, etc., in the hope of improving the quality of his blood, since he was manifestly anæmic and possessed of a low degree of vitality.

The operation decided upon was that performed successfully by Annandale, October 29th, 1874 (*Lancet*, January 23d, 1875, p. 113), upon a boy of ten, wounded by scissors in the popliteal space three months previously, namely the

ancient operation, slitting up the sac and ligating all the openings into it. In Annandale's case, only two slit-like openings were found at the bottom of the sac—one leading into the artery, the other into the vein.

February 4th, 1880, in Bellevue Hospital, I operated upon this case before the Bellevue class, with Professors Van Buren and Wood, in co-operation and actively assisted by Drs. Stimson and Yale, with the house staff. It was proposed to commence the operation promptly at half past three, but from unavoidable delays, actually the first incision was not made until about a quarter past 4 P. M —an hour unfortunately late, considering the waning daylight of a February afternoon. An Esmarch bandage was used—but it was deemed wiser, on account of the wretched circulation in the limb, not to exert much pressure in its application. Consequently the leg was only partially exsanguined. A straight incision, fully six inches long, was made over the long axis of the tumor, and the deep fascia was rapidly cut through after ligating and dividing the enormously enlarged external saphenous vein. This allowed the thin, white, glistening sac of the aneurism, moderately distended with blood, to bulge into the wound. It was oval in shape and larger than a goose egg, extending downwards in a funnel-shaped manner and losing itself between the heads of the gastrocnemius, deeply downward toward the inter-muscular fascia. It was surrounded laterally, on both sides, with a great number of thin-walled, enormously dilated veins. The sac was now slit in its long axis and sponged out. Two large circular openings were found at its upper end—the popliteal vein and artery. They each opened as a full circle at about a middle point of the upper wall of the sac. The popliteal vein, nearly as large as the index finger, was isolated and ligated above the sac. The popliteal artery, also much enlarged, was similarly treated, and the tourniquet was removed. It was now found that several openings existed in the sides of the sac, high up, requiring the ligature of dilated veins on the outside. Numerous small vessels upon the cut surface of the muscle bled freely and required ligature. The lower portion of the sac prolonged itself deeply, funnel-like, under the inter-muscular fascia and disappeared beneath the gastrocnemius and soleus, whence traction failed to dislodge it. One very large opening was found in the lower end of the sac, leading downwards; and from the bottom of this funnel, blood welled up quite freely. In order to throw a ligature around this funnel-shaped prolongation of the sac, it

became necessary to enlarge the incision downwards in the muscles covering the course of the posterior tibial artery and veins. This incision necessitated the application of a great number of ligatures. Finally the index finger of the left hand was inserted into the funnel-like process of the sac and a ligature cast over the dilated vein which constituted the prolongation of the sac, at a point perhaps a little more than an inch from the bottom of the sac when viewed from behind forwards. At the point ligated the funnel-shaped prolongation was as large as the little finger, but it seemed unwise to go further, for fear of passing collateral openings higher up, and it seemed possible that a ligature at this somewhat narrowed point might safely occlude the vessel. An artery along side of the vein was exposed and included in the ligature to save time, as it was rapidly growing dark. This artery proved to be the posterior tibial. A branch vein was detected going into the funnel-like process above the point of ligature, and communicating with an enormously dilated vein. This (a peroneal vein) was ligated.

It was now nearly 6 o'clock and quite dark. Nothing more could be found to tie, but still from the bottom of the funnel-shaped prolongation of the sac dark blood continued to well up. This could be easily arrested by slight pressure with the end of the finger placed in the bottom of the funnel-like process, but in no other manner. The last part of the operation was performed by the aid of a Collin's Bull's Eye Illuminator, which rendered excellent service.

At this point it was agreed upon by all present to apply a graduated compress and terminate the operation. The patient's general condition was very fair. Accordingly, a small sponge soaked in Squibb's solution of the sub-sulphate of iron was inserted into the funnel-shaped prolongation of the sac; other larger ones were placed upon it, and then the whole wound was filled with oakum soaked in balsam of Peru. Pressure upon the sponges was accomplished by placing over them a narrow, flat board, wide enough to be held in place by a strip of bandage going over both its ends and crossing the spine of the tibia in front, thus making two points of pressure, one over the graduated compress and the counter point over the spine of the tibia, leaving all the soft parts on both sides free from pressure, that collateral circulation might be unimpeded. Hæmorrhage was thus entirely arrested.

The patient was placed in bed shortly after 6 P. M. Pulsation could be felt in the posterior tibial artery of the limb

which had been operated upon. The patient rallied slowly from his ether and died in about sixty hours of, I believe, acute septicæmia, with a temperature just before death of 105¼° F. His record of temperature, respiration and pulse taken from the Hospital books is the following:

	T.	R.	P.
February 4th, Midnight.—100½		16	106
February 5th, 1 A. M.—101¾		20	111
5 A. M.—102		20	116
12 M.—101½		20	148
2 P. M.—102¾		20	140
4:15 P. M.—102¼		20	148
6:30 P. M.—103½		20	148
8 P. M.—103¾		20	148
11 P. M.—103¼		20	140

A little oozing of blood during the night was stopped by slightly increasing the pressure on the compress.

	T.	R.	P.
February 6th, 2 A. M.—103¼		24	144
5 A. M.—102¾		24	148
8 A. M.—104		24	144
10 A. M.—103		20	156

12:35 P. M.—Slight chill for first time, followed at 1 P. M. by vomiting.

2 P. M.—104½	24	144
1:52 P. M.—103¾	26	146
5 P. M.—104¾	20	148
7 P. M.—103¾	18	138

Foot on the right side growing cold.

8 P. M.—103½	20	140

Profuse perspiration, with quick, shallow respiration.

9 P. M.—104½	13	144

Patient pale and dusky.

11 P. M.—103¼	14	140

Right leg cold.

12 M.—104½	15	146
February 7th, 1 A. M.—10[illegible]½	14	148
2 A. M.—105¾	14	152
3 A. M.—105¾	13	150
4 A. M.—105¼	20	

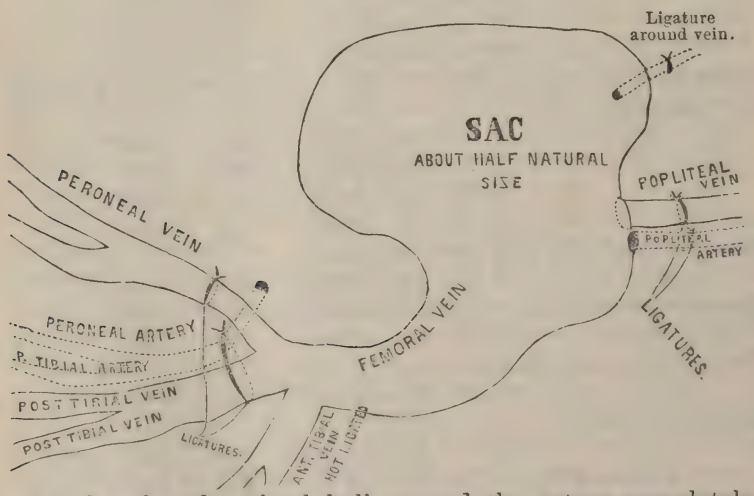
Death soon followed.

On the evening after the operation the patient rallied, and conversed upon the following day without making any special complaint. He took large quantities of quinine, brandy and milk. His pulse was uniformly soft and feeble in quality.

There was no diarrhœa. The kidneys acted properly. There was no serious complaint of pain. There was but one chill, a slight one, forty-two hours after the operation. The wound did not granulate, but assumed first a dry pink, then a moist gray appearance; there was oozing of some colored serum shortly before death. During the whole time the wound was perfectly sweet. There was no delirium, but a condition of torpor, stupidity and physical depression after the chill until death, sixteen hours.

Autopsy.—No post-mortem examination was obtained except in the region of the wound. Shortly after death, livid discoloration of all the posterior surface of the body occurred. The popliteal vein and artery above the sac were found occluded by ligatures, but entirely devoid of any clot. The vein was dilated and thickened; the artery dilated and thinned. The sac and a little of the surrounding tissue was cut out, and the cause of the failure to arrest hæmorrhage became then very apparent. I have endeavored to explain it in the accompanying diagram.

FIG. 1.



I judge that the pistol ball severed the artery completely at the time of injury, and only partly cut the vein. The lower segment of the artery must have retracted and became permanently occluded during the few weeks following the injury. The bleeding at the time was not considerable, and appears to have been promptly arrested by a bandage; therefore it seems fair to infer that it came from the half cut vein,

while the upper as well as the lower end of the artery, severed by the bruising violence of a ball from a small pistol, retracted and remained closed for a time—the lower one permanently. No secondary hæmorrhage occurred, but some little suppuration, and this was doubtless superficial; and while it was taking place, the blood from the upper end of the artery must have been flowing into the connective tissue and away through the vein, but not into the lower end of the cut artery. The sac, therefore, was gradually formed out of connective tissue in continuance with the remains of the vein, which latter persisted as a funnel-shaped process extending downwards under the gastrocnemius.

This theory of formation accounts for a peculiarity of this aneurism, which I have not been able to find in other reported cases, so far as I have examined the literature of the subject. This peculiarity is the opening of the whole calibre of the artery and of the vein into the upper end of the sac; the sac prolonging itself exclusively into the vein below and not communicating also with the lower end of the artery. The two or three lateral openings in the sac high up, were the mouths of the small veins which remained in that portion of the wall of the large vein which was not severed by the bullet.

Although the occluded end of the artery was not found in the tissues around the sac which were cut out for examination, yet no opening as of an artery, was found in the lower end of the sac, and the posterior tibial and peroneal arteries were not enlarged or thin walled, as they would have been if they had communicated with the sac. Moreover, the posterior tibial was found to pulsate feebly shortly after completing the operation, and notwithstanding the general condition of the patient, which was very bad, there was no evidence of arrest in the circulation of the limb until a few hours before death. All these facts go to show that the lower end of the popliteal artery did not communicate with the sac; that collateral circulation had been established long before the operation, and that had this fact been known, a single simple ligature of the popliteal artery, without opening the sac, would perhaps have cured the patient.

As to the cause of the hæmorrhage from the bottom of the funnel-shaped process, I think the diagram will illustrate it sufficiently. The ligature at the end of the funnel was found to have been applied just above the bifurcation of the popliteal vein into the posterior tibial venæ comites. Above this ligated point a vein (peroneal) entered from the outer side. This had been ligated. On the front wall of the funnel, half an inch above the point of ligature, was an aperture as large as a crow quill, the point of entrance of the united anterior tibial veins. From this came the hæmorrhage. It could not be seen during the operation. It could not be ligated, as the sac adhered all around to the soft parts and could not be lifted up. Pressure in the bottom of the funnel arrested the flow of blood from it.

The reflections prompted by this case are the following—

(1) In a growing young man anæmic and of imperfect nerve force, it is better to use palliative treatment by pressure in a case of arterio-venous aneurism, where it is at all possible, and not to perform any operation, whether the patient wishes an operation or not.

(2) An operation being undertaken in a case like the one just enumerated, plenty of daylight should be allowed for it.

(3) No such operation should be commenced without beforehand obtaining the patient's consent to amputation, should the condition of the parts require it.

(4) Hæmorrhages should be controlled absolutely and the wound dressed antiseptically.

(5) Failing to arrest all hæmorrhage by ligature, amputation with antiseptic dressing of the stump is the proper alternative.

(6) This patient died of septicæmia; was not the previous condition of his blood the main, at least the predisposing, cause?

(7) Finally, a most important reflection is the following: The *pathological structure* of an arterio-venous aneurism is not constant. If it had been evident, before operating, that the artery had no communication with the sac, except above—

the lower end being obliterated—ligation of the popliteal artery alone, above the sac, would have been all that was called for.

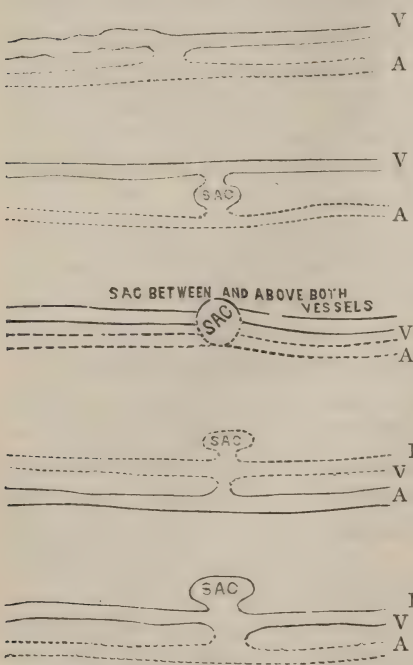
Remarks.—Since arterio-venous aneurism was fairly introduced to the profession by William Hunter in 1756, the subject has been amply discussed in short essays connected with cases and before surgical societies. I shall not burden you with a history of the disease, but desire to touch upon two points, namely—the pathological varieties of arterio-venous aneurism, and the methods of cure.

It is interesting to note, in passing, the variations in time which have been observed in traumatic cases between the occurrence of the injury and the appearance of the aneurism. Generally, in a day or two after the two vessels have been injured, the surgeon recognizes that something is wrong, and investigation shows that aneurismal varix, or arterio-venous aneurism, has been established. In this case, however, three or four months elapsed after the traumatism, when, following exercise, a swelling was first noticed in the leg. Roux observed an arterio-venous aneurism at the elbow, coming on four years after venesection; Rokitansky one in the axilla thirty years after injury by a bullet; and Monneret a communication between the femoral artery and vein appearing twelve years after a gun-shot injury. It may have been in these cases that a communication of small size had existed from the first in the form of aneurismal varix and passed unnoticed, the aneurismal tumor forming later. This happened in a case mentioned in Holmes' *System of Surgery*, reported by Mr. Beaumont, of Toronto. A communication was known to exist between the artery and vein, as evidenced by continuous bruit, etc., during ten and a half years. At the end of this time, during exercise on horseback, an aneurismal tumor formed.

The Pathological Structure of Arterio-Venous Aneurism.—Leaving spontaneous varieties out of consideration, communication between arteries and veins, caused by traumatism, exists in a number of forms. The five outlines (in Fig. 2, next page) show the most commonly recognized forms. The first three

of these are generally well known, and alluded to as a rule in text-books—

FIG. 2.



I. Aneurismal Varix—Cleghorn.

II. Arterio-Venous Aneurism—Wm. Hunter.

III. Lateral Anerismal Varix—Vidal.

IV. Lateral Aneurismal Varix, pouched artery—Rodrigues.

V. Lateral Aneurismal Varix, pouched vein—Berard.

To these five may be added six other forms less generally well known. Figure 3 (see next page) shows them in outline. They are—

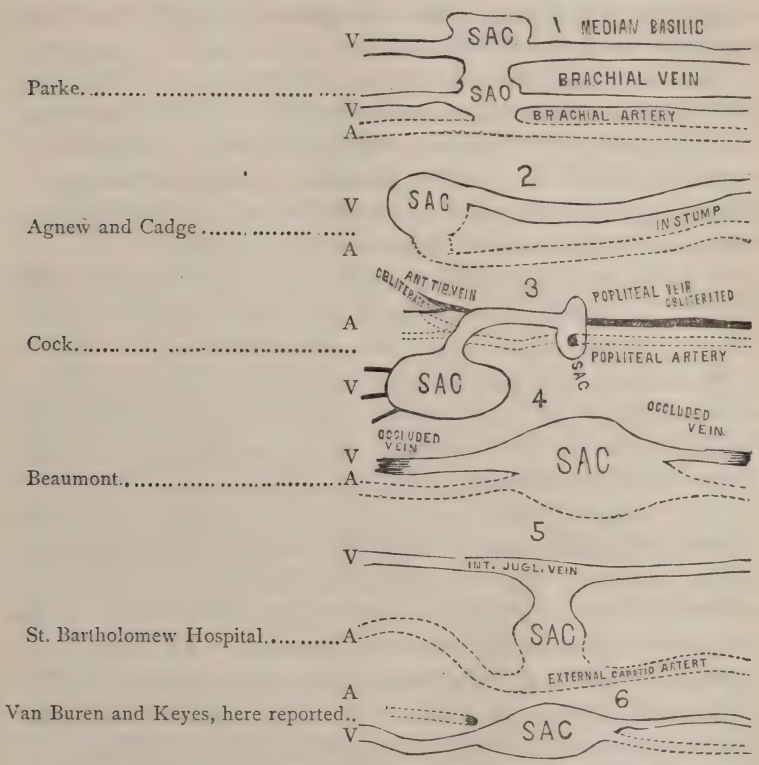
1. Communication between a deep and superficial vein and an artery. The case is that of Parke as detailed by John Bell.* The position was the bend of the elbow, and the communication was between the brachial artery and vein and the median basilic vein.

2. Communication between an artery and a vein in a stump

* *The Principles of Surgery* as they relate to Wounds, Ulcers, Fistulæ, Aneurisms, Wounded Arteries, Fractures of Limbs, Tumors; the Operations of Trepan and Lithotomy; also of the Duties of the Military and Hospital Surgeon, 1826. Discourse V—A Historical and Practical Discourse on the Effects of Hæmorrhagy—the Various Means of Suppressing Hæmorrhagy—the Doctrine of Modern Authors Concerning the Retraction of Arteries.—Parke's Case, Page 302, with Plate.

after amputation, the two vessels having been enclosed in the same ligature. Agnew, of Philadelphia, relates in his work on *Surgery* that he saw one such aneurism between the popliteal artery and vein, and Cadge is related by Erichsen* to

FIG. 3.



have seen an aneurismal varix form between the posterior tibial artery and veins after amputation at the ankle joint.

3. Communication of the artery and veins in a single small sac, nearly the whole contents of the artery passing into the vein, and upon it (the vein), lower down, forming a second large aneurismal sac. This is the case of Mr. Cock, dissected by Mr. Poland, and described in full with figure in *Bryant's Surgery*.†

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* *American Reprint of Surgery*, Vol. I., p. 73.
† *American* (second) *Edition*. 1879. P. 333.

4. Communication between an artery and a vein, the vein being entirely obliterated at a certain distance both above and below the aneurism, which latter, however, communicated with the vein by a large opening between the two points of obliteration. This is the case of Mr. Beaumont, reported in the *Medical Times and Gazette*, July 27, 1867, and detailed with plate by Mr. Holmes in his *System of Surgery*.*

5. Communication between an artery and a vein not naturally lying in contact, but brought into mutual communication by a wound. This is a case mentioned by Holmes,† a specimen of which is in the Museum of St. Bartholomew's Hospital, showing a small sac communicating with the internal jugular vein and the external carotid artery.

6. Communication between an artery and a vein, the lower end of the artery having no communication with the sac. This is the case reported in the present article.

There are doubtless other varieties of the traumatic sort which I have not encountered. There certainly are other varieties among spontaneous arterio-venous communications; a very interesting one being the case of Mr. J. G. Perry,‡ where there were two communications along the course of the *same vessels; the popliteal artery and vein* forming one arterio-venous aneurism and the femoral artery and vein another. In connection with the latter, there was a single occlusion of the vein below the aneurism. I am not, however, considering the spontaneous cases in this paper.

Treatment of Arterio-Venous Aneurism.—It has been generally recognized by Hunter, Cleghorn, Porter, Holmes and other competent authorities, that many arterio-venous aneurisms remain stationary for very long periods. Thus a case is referred to by Holmes as reported by Mr. Moore, where the affection existed thirty-six years before an operation was necessary; and Vogt mentions a case under the observation of Hunter which did not increase in size during thirty years.§ Various appliances to embrace and support the parts, when

* *Second Edition*, Vol. III., p. 526.
† Page 527.
‡ *Med. Chir. Trans.*, Vol. XX., p. 31.
§ Real—*Encyclopædie der Gessammten Heilkunde*, 4 u 5 Lief., p. 316.

the affection was situated upon an extremity, have been used with comfort and advantage to the patient, although direct pressure does not cure the aneurism—that is, it alone does not do so. Hence temporizing, watching and bandaging are proper expedients to resort to, and an operation, the seriousness of which has been always recognized, should be postponed as a last resource, to be employed only when an aneurism has burst, or is about to do so, or when pain is excessive or the patient's functions seriously threatened. Nelaton,* in connection with a traumatic arterio-venous aneurism of the popliteal artery, records his adhesion to this idea, declining to operate, as the patient was not in urgent need of relief; stating that the old operation alone was likely to effect a radical cure, and that this, under the circumstances, was so difficult and dangerous, that, if obliged to operate at all, he should prefer amputation.

Most of the usual expedients have been tried in cases of arterio-venous aneurism, and all count a few successes. Jobert† and Vallette† each had a successful case by injecting a weak solution of perchloride iron into the sac. Velpeau† operated twice in this manner with one cure.

Galvano-puncture counts four cures at the hands of Bosse,† Cappeletti,† Debovt† and Voillemier.†

Vanzetti§ cured two cases in the arm by pressure on the vein below and on the artery above; the cure in each case requiring about six hours. Franzolini‡ cured a case of arterio-venous aneurism by compression, using Vanzette's method intermittently during sixty days; and Erichsen§ refers to Fischer's tables as recording twelve cases, nine of which were cured by digital compression, and in four, at least, of these nine, Vanzetti's method was employed.

Nelaton's method, referred to by all writers, differed from Vanzetti's in that, by direct pressure, he endeavored to obliterate the vein, converting the compound into a simple aneurism, and afterwards perfecting the cure by pressure on

* *Journal de Med. et de Chir. Pratique*, 1862, p. 155, and Holmes, *E. C.*, p. 533.

† Quoted by Holmes, p. 533.

‡ Richet, *Art. Aneurismes, Diction de Med. and de Chir. Pract.*

§ Erichsen's *Surgery*, Art. "Arterio-Venous Aneurism."

the artery above, or by its ligation. He cured five or six patients in this way. Richet* attempted this method of cure in a case which he reported to the Society of Surgery. After using direct pressure for forty days, the sac became inflamed. He therefore cut into it and tied everything. The patient died of pyæmia twenty days later.

I do not know of any attempt to cure arterio-venous aneurism by the use of Esmarch's bandage. In a few instances where the vessels are superficial, arterio-venous aneurism has been cured by excision of the tumor and of the artery and vein involved. A successful case of this operation upon an arterio-venous aneurism, involving the temporal vessels, has been recently reported by Czerny (*Archiv Klin. Chir. and Intrnl Journal of Med. and Surg*, 1, II., p. 391).

Spence† has cured a case by ligation of the artery above and below without opening the sac. A number of successful operations have been reported by the old Antillus operation, slitting up the sac and ligating everything running into it.

Bardeleben‡ says that he once cured an arterio-venous aneurism at the bend of the elbow, by simple ligation of the brachial, but refers to Stromeyer as having failed in a similar attempt in the neck; after which, he resorted to the ancient operation with success. Richet§ alludes vaguely to a few patients who have been saved by the Anel operation, calling it a "guérison toujours chèrement achetée." In a case reported by Roux, and another by Lesauvage, to which Richet refers, the tumor became smaller after a ligature had been applied to the main artery above and so remained.

The Hunterian operation at one time was in considerable favor. Dr. Van Buren,‖ in reporting an unsuccessful case of this operation for arterio-venous aneurism at the hands of Dr. Valentine Mott, sums up the evidence very fully, quoting freely from authorities on both sides, and condemns the operation absolutely. The Hunterian operation has been more or less strongly advocated for arterio-venous aneurism

* Art. *Dic. de Med. et de Chir. Prat.*, Art. "Aneurismes."
† *Edin. Med. Journal*, July, 1869.
‡ *Lehrbuch der Chirurgie*, Vol. II., p. 153 (note).
§ "Anevrismes"—*Dict. de Med. et de Chir. Prat.*
‖ *New York Journal of Med.*, New Series, Vol. II., 1849, p. 171.

by Hodgson, Scarpa, Physick, Liston, Miller, Mott, Dupuytren, Breschet, Atkinson, Liston, Lallemand, Lenoir, Baroni, and other well known surgeons who have all performed it unsuccessfully, generally with a fatal result—death occurring from gangrene or secondary hæmorrhage. The Hunterian operation in these cases has not been countenanced by Lisfranc, Broca, Begin, Boyer, Malgaigne, Guthrie, Burns, Syme, Parke; Cooper and Velpeau were in doubt. Dr. Van Buren's paper contains a table of twenty two cases of the Hunterian ligature for arterio-venous aneurism with twenty-own failures. In 12 death followed; 1 was doubtful, and of the remaining 9, 1 was a cure; 3 underwent amputation, and 4 were cured later by other means.

Morris's tables record 11 cases; 8 died—6 from secondary hæmorrhage, 2 from gangrene. None of the standard authors of the present day advocate the Hunterian operation.

Some advise ligature of the artery on both sides without opening the sac; but most agree in the advisability, if any cutting is resorted to, of the old operation, laying open the sac, a manœuvre which has yielded a certain number of brilliant successes, and which certainly commends itself as being the most rational, especially when the variety in pathological form which the affection is liable to assume is borne in mind.

1 *Parke Avenue.*

ART. II.—**A Simple Way of Performing Optico-Ciliary Neurotomy—The Proposed Substitute for Eneucleation.*** By JOS. A. WHITE, M. D., Surgeon in charge of the Richmond (Va.) Eye, Ear and Throat Infirmary.

The section of the optic and ciliary nerves behind the eyeball for the prevention of sympathetic ophthalmia after injury, was first proposed by Von Graefe; but the operation was first performed by E. Meyer and A. Weber in 1866. Since then and more recently—in the last four or five years—it has been frequently done.

The first mode of getting at the nerves was by cutting the

* Read before the *Medical Society of Virginia*, October 11th, 1881, and by request, contributed to the pages of the *Virginia Medical Monthly*.

external rectus muscle from the sclerotic and passing the scissors through the opening thus formed. A later method was that of cutting the internal rectus. Another plan was, without cutting any of the recti, to make a meridianal incision between the internal and superior recti.

I have tried all three of these methods, and all have their objections. The cutting and re-adjusting a muscle is very troublesome. I found the opening between the upper and inner recti difficult to work through on account of the nose being in my way, and also it was objectionable because I nearly always cut an oblique muscle.

I therefore tried an opening between the upper and outer recti, as I would thus escape the oblique muscles, and have found it to work admirably in the three cases so far operated on. The operation is performed as follows: A meridianal incision is made through the conjunctival and sub-conjunctival tissues from the upper border of the external rectus to the outer border of the superior rectus, thus exposing the sclerotic. A strabismus hook is then inserted under each of these muscles, and with them an assistant pulls the eye down and towards the nose. A small lid elevator is then hooked under the upper lip of the incision and drawn up, thus making a large opening through which the curved scissors can be passed behind the eye-ball, and the optic and ciliary nerves cut. Knapp's double hook is then inserted into the posterior part of the sclerotic and, without any trouble, the cut end of the optic nerve and its surroundings are exposed to view at the incision. The sclerotic is then carefully cleaned with the scissors—thus cutting away sections of the optic and ciliary nerves. As long as any blood oozes from the opening, it is kept open. When this ceases, a conjunctival stitch is put in, and cold water dressing applied.

The three cases I have thus operated on had no pain nor protrusion of the eye following the operation, and the cornea has remained perfectly anæsthetic to this time in all of the patients, although more than six months have elapsed.

I have no where seen a suggestion to so perform this operation—the modifications having grown solely out of my difficulties in following prescribed methods. It is easier of per-

formance than any other. The posterior part of the eye is more easily attacked from this point, and we also avoid cutting an oblique muscle; and the use of the hooks and retractor allows a free play of the scissors and a good view of the back of the eye-ball when rotated into the opening.

410 *East Grace street.*

ART. III.—**The Palsies of Children.** By WHARTON SINKLER M. D., Physician to the Orthopædic Hospital and Infirmary for Nervous Diseases, and to the Episcopal Hospital, Philadelphia, Pa.

During the past four years I have had the opportunity of seeing, at the Infirmary for nervous diseases, 140 cases of paralysis in young children. Besides these there were a number of others in which either the diagnosis was doubtful, or the notes of which were incomplete. I have, therefore, thought it best to omit them. Were these cases included, the total number would be much greater.

The 140 cases are divided as follows:—

"Esssential infantile paralysis"	86
Pseudo-hypertrophic paralysis	2
Hemiplegia	23
Rachitic paralysis	6
Facial paralysis	2
Diphtheritic paralysis	2
Congenital paralysis	2
Reflex paralysis	2
Syphilitic paralysis	2
Traumatic cerebellar paralysis	1
Paralysis following spinal meningitis	4
" " cerebro-spinal meningitis	1
" " myelitis	3
	140

I do not propose to go into any scientific discussion in regard to the etiology and pathology of the various forms of paralysis above mentioned. I shall simply give the practical points as to diagnosis, treatment, etc., as they presented themselves in the cases at Dr. Weir Mitchell's and my own clinics.

The so-called essential infantile palsies being the most numerous and the most important, I shall consider them first.

Many names have been given to this form of paralysis, Rilliet and Barthez, Niemeyer and others, calling it the essential paralysis of infancy. Hammond terms it organic infantile paralysis; and Meigs and Pepper, modifying the name given it by Duchenne, of fatty atrophic paralysis, call it atrophic infantile paralysis.

As will be seen by reference to the text-books, infantile paralysis has been recognized since the end of the last century, but it is only within a few years that it has been fully understood and separated from the other forms of paralysis met with in children. Indeed, even some recent writers have failed to make the distinction. West, in his table of 43 cases, has recorded several instances of facial paralysis, and a number of hemiplegias of cerebral origin; and Meigs and Pepper have referred to these very cases as examples of the disease under consideration.

It is by no means an easy matter to diagnosticate infantile paralysis, for although the symptoms are generally distinctive, cases often occur which resemble the disease in many particulars, but in other important features differ. I shall briefly recall the well known characteristics of this disease.

The affection generally occurs in a strong, healthy child, between six months and two and a half years old. The patient may have had fever, usually in the latter part of the day, accompanied by vomiting during the night, or twenty-four or forty-eight hours preceding, and in the morning is found to be paralyzed in one or more limbs. Or the loss of power comes on suddenly without any sickness having been noticed. Occasionally it occurs in the course of, or as a sequel of measles, scarlatina, or whooping-cough. If both upper and lower extremities are affected, the former soon recover power, often by the end of a week. The paralysis in one or both legs persists, or slowly mends, and it is six months or a year before the child begins to walk again. There are usually no convulsions nor loss of consciousness; nor is there paralysis of the bladder and rectum. In most cases there is more or less soreness to touch, or pain in the back on movement; for several days the little patient will cry out when lifted. There is no loss of sensation. The

palsied limbs soon begin to waste, and as the sound limbs grow they become larger and longer than the affected members. In some, this difference in size is very great, the paralyzed limb seeming almost rudimentary. Even where the length of the limb rests unaltered, we sometimes find that the foot or hand of the diseased side is shortened

If the patient is seen six months or a year after the attack, the affected limbs are found cold, shrunken, and atrophied. There is a mottled appearance of the skin, which seems adherent to the subcutaneous cellular tissue. On pinching up a fold of the skin it does not seem loose, as in the healthy limbs, but seems to cling to the deeper structures.

The loss of power is more or less complete; sometimes it is only a single group of muscles that is palsied. Should the whole limb be affected, it is relaxed and limp, the ligaments of the joints being also lengthened. There is never any contraction of the muscles as is seen in cerebral palsies. There is often shortening of some muscles in a limb, producing deformity; but this is quite different from the contractions just mentioned, being a true shortening of the muscle, owing to the position which the limb has assumed, or from the muscle acting while its opponent is palsied, and not a spasm of the muscles, which can be overcome by force, or which at times relaxes spontaneously. Adams (*Club Foot*, p. 83) refers to the shortening of the muscle as the "adapted atrophy of Paget," and expresses his own belief that there is no active contraction of the muscle. According to Duchenne, electro-muscular contractility to the induced current is not affected in the paralyzed limbs during the first few days, but afterwards they rapidly lose the power of responding to this current. Galvanism, however, continues to cause good response even when faradism fails to produce the faintest movement.

The following is a well-marked example of infantile palsy—

Joseph R. L., aged four years, was brought to my clinic November 18th, 1874. He was the only child of his parents; father died of kidney disease, but his mother is living and healthy. He is a robust, healthy-looking boy, with light hair, blue eyes, and sound teeth. When fifteen months old he was walking and in good health, except that he was teething. One day in July, 1874, he was seized with vomiting

and fever, which lasted three or four days; at the end of that time he was found to be completely paralyzed in both legs. He had no convulsion, and there was no loss of power in the bladder or rectum. During the time that the fever lasted he seemed to be unconscious, but screamed when lifted or handled. In two weeks the right leg regained entire strength, but the left did not improve, and for a month he was weak and feeble.

Condition on Examination.—There is no difference in the length of the legs, but the left foot is one-quarter inch shorter than the right. The right leg is strong and well developed, the left is small, flabby and cold. There is absolute loss of power in all the muscles from the hip down, except in the flexors of the leg, in which there is slight movement. He can walk without assistance, but the leg is simply swung around, and when he bears any weight upon it there is great recurvation of the knee. The measurements of the legs are as follows:

Left leg 3 inches above the knee, $8\frac{1}{2}$ inches in circumference.
Right " 3 " " " " 10 " " "
Left " 2 inches below the knee, $6\frac{3}{8}$ " " "
Right " 2 " " " " 8 " " "

Temperature of the sole of the left foot, 69° F.
" " " right " 73° "
" " calf of the left leg, 74° "
" " " right leg, 84° "

These temperatures were taken in a room where the thermometer stood at 70° F.

The muscles of the leg give no response to a strong induced current, but fifty cells of the galvanic battery produce good contractions of the paralyzed muscles.

From the difference in mode of onset of the affection, Dr. Mary Putnam Jacobi* has divided the cases into several classes. The first class is where the disease comes on suddenly, without premonitory symptoms, and where the child is under competent observation. Of such Dr. Jacobi found but twelve of one hundred and sixty-three cases she had collected. There are six instances in my table.

The second class is where the paralysis is discovered in the morning after a quiet night. Six of our cases have this history. Among these may be included three cases in which the paralysis came on between morning and evening without

* *American Journal of Obstetrics*, June, 1874.

any apparent sickness, the actual onset not having been observed.

The third form is, in my experience, the most common. It includes those cases in which the palsy has been preceded by fever, "beginning in the evening and lasting all night, or else for two or three days."

There is also nearly always vomiting or nausea, and some pain on being moved. These latter symptoms are not mentioned by Dr. Jacobi, but other authors speak of them as being common. Thirty-four cases in my table are of this nature.

In the fourth class paralysis is preceded by convulsions. Dr. Jacobi found four out of thirty-seven cases which she examined in reference to this point. In but three of our sixty-eight cases did it occur, and there was one in which fits followed the loss of power.

In the fifth form the paralysis comes on in the course of a convalescence from another disease. Eleven of our cases were of this class, and I have not included two or three in which the palsy came on in the course of whooping-cough, for they were accompanied by the usual symptoms, and the complication of whooping-cough seems to have been accidental.

A sixth class is made by the author already quoted, where vomiting alone precedes the palsy. I do not think this can be made a distinct class, for it is most probable that in these cases the fever has been overlooked by the parents, who are often unobservant. In three of our cases it was stated that there had been vomiting without fever.

A seventh form is where "some mechanical injury has occurred." I must take exception also to this decision, for there is no proof that a fall which the child has sustained a week or perhaps a month before the paralysis, can be regarded as the cause of it. In several of our cases was there an account of a fall, which had taken place days or weeks before the palsy occurred, and which had caused no pain or difficulty in walking at the time. In only one instance was the paralysis said to have immediately followed the injury,

and here the history was not to be taken as reliable, for the patient was not seen until fourteen years afterward.

In the eighth form symptoms are markedly spinal in their character. There is opisthotonos, hyperæsthesia, and bladder trouble. Five of our eighty six cases belong to this class. In none of them, however, was there any paralysis of the bladder. Dr. Jacobi gives a case of this kind in which there was retention of urine for eight days, and insensibility to the prick of a pin for two days, and very justly remarks that this case resembles lumbar myelitis, and I think it is not entitled to be recorded as a case of infantile paralysis.

The ninth class of this author really belongs to the cerebral palsies.

I shall make another class, in which the loss of power comes on gradually, without previous fever or sickness being observed. Three of our cases were of this nature.

ART. IV.—**Neuroses of the Genito-Urinary System—Impotence and Sterility in Man and Woman.** By JOHN J. CALDWELL, M. D., Baltimore.

Philosophy of Nerve Action.—With scalpel, microscope, and chemistry, we fail to delineate the anatomy of the nervous system. It is a truth that, that which is, is but the sequence of that which was. The results of to-day could not be had without the investigations of yesterday. In like manner will the knowledge of to-day be the basis of the conclusions of to-morrow—such is the law of intellectual development; such is the sequence of scientific advancement. Sir Charles Bell first showed that the nerves of the human organization are distributed with regularity. It is the basis of the physiology of the nervous system. He first called attention to the functions of the spinal nerves, pointed out their different structures and their different functions; distinguished the sensory and the motor. Marshall Hall succeeded Bell, and we have his excito-motor system. Others succeeded Hall to explain nervous phenomena, among whom stands pre-eminent the great Claude Bernard.

But we owe more to Marshall Hall than the explanations he has given of nervous phenomena. He demonstrated that

when the scalpel and the microscope fail to determine its anatomy, we can yet map out the anatomy of the system. A physiological fact is as certain an indication of nervous distribution, as though we could follow its ramifications, with scalpel in hand, or microscope to the eye. Observation and experiment are the thread which leads out of the labyrinth, without which we must be lost in its intricate mazes. Marshall Hall has given us a map of the excito-motor system of nerves. Bernard has shown peripheral distribution. The functions of the brain and spinal marrow are to be laid before us by pursuing the same line of investigation. The number of devoted investigators give an earnest promise that the science of life may yet be illustrated, that the opprobrium that medicine is only an empiricism, may be expunged, and that the day will yet arrive when medicine will be practised upon laws or principles known and recognized.

Genito-Urinary Centres.—The nervous centres which are connected with the brain, on the one hand, through the spinal cord, and on the other with the organs of generation, may be excited to action, and their influence manifested both by the emotions originating in the brain, or may be propagated by excitement commencing in the organs of generation themselves. The impression originating either in the brain, or in the organs being propagated to these centres, will be manifested by erection and other phenomena, if the necessary conditions obtain.

It would therefore appear that the functions of the organs of generation are intimately connected, more or less dependent upon the vaso-motor apparatus which are the carriers of nerve force to erectile tissue, and further, that the inhibitory action exerted by the sensory centres throughout the cord, exercises an important influence over the circulation. To this we must attribute the periodical and rythmical action of the heart and respiration, blushing, rage, pallor and suffusion. To the intimate relation and anatomical connection between all parts of the nervous system with the brain must we attribute the fact that there is not an action of the body, whether voluntary or involuntary, that may not be influenced by the peculiar state of the mind at the time.

Impotence and Sterility.—A distinction may be drawn between impotence and sterility. Sterility in man results from non-production of spermatozoa; in woman from non-ovulation. Impotence may be applied to any morbid state which may impair or destroy the vitality of the ova or spermatozoa after their secretion, or which may prevent that contact necessary to fecundation. It follows that in man impotence may be congenital or acquired, or due to malformation of the penis, to deficient development, or the effects of disease preventing the deposit of the semen within the vagina, so that it may be conveyed to the ovary or ovum. On the other hand, the mechanical apparatus may be in perfect order, and yet the forces necessary to put it in operation may be wanting. I mean nerve power.

A variety of causes may impair, either temporarily or permanently, the production of this nervous force or energy. Thus, what various mental conditions—such as violent emotions of any kind, anger, anxiety, grief, disgust, want of confidence—impair the sexual functions? These are temporary in their results, and require no medical treatment; only "minister to a mind diseased; pluck from the memory some rooted sorrow," etc.

Protracted fevers and chronic diseases generally impair the nervous system, the intellectual faculties, and those centres which preside over the function of generation. Opium eating, excessive use of tobacco, especially pipe and cigarette smoking, also lessens genito-urinary excitability; chewing, however, is not so injurious as smoking. In small quantities, alcoholic drinks, more especially the French wines, excite the amatory desire; although when used in large quantities —especially such alcoholics as whiskey—the person whilst under its influence is impotent, and his desire for the future is blunted. Excessive venery also exhausts this function. And lastly, masturbation will, in time, utterly destroy the procreative powers; and what is a curious fact, destroy on the part of the victim of the vile practice, all desire for the opposite sex, and the power to perform the act of amatory collision.

The same line of remark applies to impotence in women; any condition, congenital or acquired, which prevents the passage of spermatozoa to the ovary, or which prevents the descent of the ova to the uterus will cause impotence. Among congenital causes may be mentioned imperforate hymen, adhesion of the labia, and the various abnormal conditions of the vagina, or of uterus or Fallopian tubes. Among the acquired causes may be mentioned flexions and prolapsus of the uterus, diseases of the os and neck, cervical and vaginal leucorrhœa, all of which conditions prevent the upward passage of spermatozoa, or else destroy their vitality. Causes which impair the nervous energy of the system, such as already mentioned when considering impotence in men, equally apply to women, in addition to which may be mentioned dysmenorrhœa, and especially that variety called membranous dysmenorrhœa.

Syphilis is rarely (most unfortunately) the cause of impotence in men; in women frequently it is a cause of sterility; certainly it is one of the most potent causes of abortion.

Sterility is a rare condition of men; it is a more common condition with women—even with women who have amorous desires. It may be congenital from defective development. The testes *may* be absent in man, the ovaries in women, but such abnormalities are extremely rare. Sterility may result from disease or accident. Disease of the testicles may result in sterility in man; disease of ovaries may be the case in women. Malposition of testes is said to cause sterility; whilst the act of copulation may be amorously performed, there are no spermatozoa in the seminal discharge.

Ready Method of Preparing Fomentation.—Take your flannel, fold to the required thickness and size, dampened, quite perceptible with water, but not enough to drip, and place it between the folds of a large newspaper, having the edges of the paper lap well over the cloth, so as to give no vent to the steam. Thus prepared, lay it on the heated surface of the stove or register, and in a moment steam is generated from the under surface, and has permeated the whole cloth sufficiently to heat it to the required temperature.

Original Translations.

From the French and Italian. By WM. G. EGGLESTON, M. D., Hampden Sidney, Va.

Influence of Stretching the Pneumogastrics on the Heart (*La Tribune Méd.*, Nov. 20th, 1881).—M. Laborde presents two interesting facts:

1st. Stretching one pneumogastric causes a very considerable modification of the cardio-graphic trace. Stretching both fully heightens the effect. This modification consists in a marked abatement (or slacking) of the contractions and in a marked diminution of the fulness.

2d. It is almost impossible to obtain, after double section of the vagi, the customary suspension of the cardiac beats, by exciting the peripheral ends by means of an appropriate electric current. M. Laborde will, at an early date, present some new facts concerning the influence of the nervous system on the cardiac muscle.

Physiological Effects of Napelline.—M. Duquesnel has discovered a new substance in the mother-liquor, arising from the preparation of crystallized aconitine, which he calls *Napelline*. It acts as a base; is not crystallizable, but very soluble, and possesses interesting physiological properties. It produces essentially the same effects as aconitine, but in much larger doses, and can thus be substituted with advantage for that alkaloid, which is so unmanageable that most physicians hesitate to use it. Thus whilst $\frac{1}{2}$ milligramme (about $\frac{1}{130}$ gr.) of aconitine given to a dog produced very marked toxic phenomena, weakness, staggering, vomiting and horrible pains, shortly followed by death, napelline in another dog, in a dose of 3 to 4 centrigrammes (about $\frac{1}{2}$ or $\frac{2}{3}$ gr.) scarcely produced any physiological effects. One effect not seen in aconitine is a calm sleep, fully resembling that produced by narceine. This new remedy, which seems to unite the soporific properties of narceine and the insensibility-producing properties of aconitine (i. e., insensibility to *pain—insensibilisantes*), can be employed in a large number of painful affections accompanied by insomnia. Its great solubility makes its absorption easy, and renders it advantageous for hypodermic injections. M. Laborde reports its successful use in a neurapath with erratic neuralgia and loss of sleep, in which the whole catalogue of narcotics had failed.

M. Dumontpallier ameliorated three cases of facial, sciatic and intercostal neuralgia by its use. (*Idem.*)

Atropine for Hiccough.—M. Dastre (for M. Morat) reports a few cases in which energetic movements of the stomach produced by pilocarpin were relieved by injections of atropine. (*Idem*)

The Relation of Angina Pectoris to Diabetes.—M. Vergely (Bordeaux) gives the following conclusions:

1st. Attacks of angina pectoris may appear in the course of diabetes.

2d. The attacks may be simple or associated with intermittent neauralgias.

3d. They may appear independently of any cardiac affection.

4th. It is important, during an attack of angina pectoris, to examine the urine carefully, and ascertain if this neurosis or neuralgia is not united with diabetes [*Gaz. des Hôp.*, Nov. 24].

Modification of the Ordinary Operation for Tibio-Tarsal Resection in Certain Fractures Complicating the Instep.—M. Demons, Surgeon to the St. Andrè Hospital, at Bordeaux, reports: There was a fracture of the two bones of the left leg near the tibio-tarsal articulation, with a transverse wound on a level with the internal malleolus; the joint was open, the internal malleolus being torn off, and the upper fragment of the tibia projecting through the wound. The fibula was fractured two fingers' breadth above the external malleolus. The foot was considerably everted. Tibio-tarsal resection was performed. The joint was further laid open by an incision along the lower extremity of the tibia, and the upper fragment of the internal malleolus was detached and completely taken away. Then the upper fragment of the tibia was resected. Finally, a verticle incision was made along the fibula and the two fragments resected, leaving in place the external malleolus. The astragalus was intact. The upper layer of cartilage was removed. The operation was performed under "Listerism." Anchylosis resulted, with recovery, and a good and solid foot. In walking there was only a slight inclination outward. The operation was not entirely original with M. Demons, it having been performed by M. Richet, in 1874. M. Demons' result, however, is interesting, as confirming the utility of preserving intact the external malleolus in resection of the lower extremity of the two bones of the leg. (*Idem*)

Experimental Extirpation of the Lungs.—M. Marcus has performed a purely *experimental* operation on two dogs and three rabbits. Regarding the lungs as "a double organ," he thought that ablation of one might not be incompatible with existence. Under the antiseptic method the animals were subjected to the above operation, i. e., one lung was ablated. The two dogs died very quickly; the three rabbits still live, after three weeks. M. Marcus does not deduce any practical application from his experiences. (*Idem.*)

[Probably the dogs would have survived if quebracho had been administered for several days.—TRANSLATOR.]

Sudamina and Bullæ of Typhoid Fever.—M. Robin has collected and examined 3 grammes (about ʒj) of the water contained in the bullæ of a typhoid-fever patient. It was transparent, colorless, of acid reaction, of a strong and disagreeable odor, and contained crystals of urea and chloride of sodium. It contained, moreover, on an average ʒv of solids per 2 pints, there being about ʒiij+ of organic matter to ʒj+ of mineral matter. This shows the importance of elimination by the skin. In this case the urine did not contain less than the usual amount of solid matter. (*Idem.*)

Cutaneous Eruptions Caused by the Use of Certain Medicines (*Giron. It. del' Malatt. Vener e del' Pelle*, June, 1881).—Anspitz, in his valuable "System der Hautkrankheiten," gives the following as the secondary result of an angioneurasis:

Quinine.—(*a*) Scarlatinous erythema; (*b*) morbillous papular erythema; (*c*) hæmorrhagia and purpura; (*d*) wheals, œdema, pruritus.

Cinchona, Belladonna, Strychnine, and Stramonium.—Manifestations like papulæ sudorales.

Digitalis.—Erythema after a few days' use.

Aconite.—Vesicular exanthema.

Santonine.—Vesicles, wheals.

Rhus Venenata and Toxicodendron.—Vesicular eruption.

Opium and Morphine.—Erythema, papular eruption with much desquamation and pruritus.

Pilocarpin and Atropia (?)—Augmentation of the perspiration.

Phosphorus.—Purpura.

Phosphoric Acid.—Bullous eruption.

Mercury (internally).—Erythema, eczema.

Arsenic.—Erythema and papules, eczema.

Carbolic Acid.—Erythema, vesicles or wheals.

Salicylic Acid.—Purpura, vesicles with laryngeal catarrh; wheals.

Chloral Hydrate.—Erythema (well colored), pruritus, desquamation; purpura and petechiæ; eczema with crust and scab.

Balsam Copaiba, Cubebs, Turpentine—Vesicles, erythema, eczema.

Cod-Liver Oil.—Acne.

Iodide of Potash.—Papules; vesicles and bullæ: pustules and ecthyma; eczema; ecchymosis and purpura.

Bromide of Potassium—Papules and pustules; deep tubercles and ecchymosis; vesicles; ulcers.

Proceedings of Societies.

Medical Association of Baltimore, Maryland.

[Specially reported for the *Virgina Medical Monthly.*]

Stated meeting held November 14th, 1881.

Dr. James A. Steuart, President, in the chair.

Solid Masses Resembling Beans Passed Per Anum.—Dr. Jos. T. Smith exhibited several whitish masses passed from the bowels of an infant suffering from diarrhœa and greenish stools. The masses resembled beans, and the resemblance continued on making sections of them. Microscopic examination showed them to be only the curd of milk.

Chian Turpentine in Cancer.—Dr. John Morris had been using this agent in a case of *Epithelioma of the Cervix Uteri.* He found that the sample obtained in this city was very different from that used by Clay. Pills of the former passed unchanged through the bowels, whilst those made from the preparation which he had ordered from England dissolved readily. Another characteristic of the latter preparation was the very marked diuretic action which it produced. He did not regard the domestic preparation as a genuine article. He had not used the agent sufficiently to speak yet of its value in the case referred to; the only change noted (after the use of ℥j) was the less amount of opium required by the patient.

Persistent Hæmorrhage in Early Pregnancy.—Dr. Gibbons asked for advice in regard to the treatment of a multipara, æt. about 30, three months gone in pregnancy, who had had uterine hæmorrhage for a month, at times very profuse. The womb was very relaxed. He had used ergot very freely

(℥iv in all), with hot water vaginal injections, rest and other remedies, but without any marked benefit. She had had little or no pain, but the uterus could be felt to contract, as was supposed from the influence of the ergot, which was given freely, under the impression that miscarriage was imminent. But she had gone on in the same way, without miscarriage so far, but with the continuance of the profuse hæmorrhages. There was evidence in this case of previous laceration of the cervix. This patient had a threatened miscarriage in a previous labor.

Dr. Williams remarked that these cases are very obscure and their cause not apparent. Such patients may go on to term by care, quietude and medication. He advised that the patient be kept in bed a month or so, and then if hæmorrhage continue, use a tent in order to produce artificial delivery.

Dr. Morris agreed in the advice given.

Dr. Cordell suggested that the hæmorrhage might depend upon the previous laceration, and advised attention to the condition of the cervix.

Dr. Ellis has found rest and opium effectual in these cases. He also urged the importance of using the speculum.

Dr. Ashby reported the case of a lady five or six months pregnant, who was sent to him from Virginia with supposed epitheliomatous disease of the cervix. Upon examination he found only a lacerated and ulcerated cervix.

Mammary Cancer.—Dr. Williams read a paper upon this subject, with a report of cases occurring in his hands. He insisted strongly upon an *early and complete* extirpation of the gland.

Dr. Ashby had seen 7 cases—all but one in multiparæ—6 of scirrhus and 1 of encephaloid cancer. In 5 there was recurrence. In 1 the growth was removed several times, the patient ultimately dying—not from disease of the breast, but from internal cancer. In another case a small tumor was found and removed nine to twelve months after the first operation.

Dr. Taneyhill had seen a case in which a cancerous mamma was removed by the late Dr. George Robinson; two years afterwards he himself removed the other breast. The patient is still living and well.

Dr. Ellis reported a case in which a patient, æt. 68, came under his care September, 1879, for a large scirrhous cancer of the left breast of two years standing, due, apparently, to to an injury received in the breast. Otherwise the patient

was, and had always been, in excellent health. There was no heredity. She was anxious for an operation. The tumor was accordingly removed, and found to weigh two pounds and nine ounces. The wound healed well and the patient is still well.

Dr. Price argued that the disease was constitutional, since the cancer of heredity and of acquirement are indistinguishable.

Analyses, Selections, etc.

Vaccinal Eruptions —In an address before the Dermatological Section of the International Medical Congress, in London, August, 1881, Dr. Gustav Behrend, Privat-Docent at the University of Berlin, is reported almost *verbatim* as follows by W. T. Alexander, M. D., who has translated the paper for the *Archives of Dermatology*, October, 1881:

After vaccination there may appear two distinct series of pathological changes in the general integument of the body, having no connection with each other and differing as regards their clinical significance.

One series of these changes, which I designate as vaccinal local diseases of the skin, has its starting-point at the place of vaccination itself, and remains either limited to its immediate neighborhood, or spreads from this point over a larger extent of surface., and may, under certain conditions, exceed the vaccination lesions in duration. To this class belong the redness and inflammatory infiltration of the skin which surround the vaccination lesions over a larger or smaller extent of surface, the erysipelatous inflammations, and eczemata of various kinds. The latter, especially, may last many months, and they form an important element in those accusations which are constantly made against the practice of vaccination by its opponents.

The second series of diseases consists of *general eruptions* which appear very acutely, with or without febrile manifestations, at a distance from the point of vaccination, and affect continuously more or less extensive surfaces of skin.

These varieties of eruptions, which I designate as *general vaccinal eruptions*, and to which my communications refer, are of tolerably rare occurrence. In my position as public vaccinator, among the 300 cases which I vaccinated during the past year, I have observed them only six times. To this

number I have added another case which occurred in the practice of Dr. David, of Berlin, and also a few others of which I have received information only from the statements of mothers.

Of these exanthemata, only the so-called *roseola vaccinia* has been hitherto carefully described—a hyperæmic macular erythema, of which Hebra says, that it appears from the third to the eighteenth day after vaccination, first showing itself in the neighborhood of the vaccinated point, from which it gradually spreads over a large extent of surface, and that it should be regarded as a lymphangitis of the skin. I am compelled to modify these statements in important respects. In the cases which came under my observation, the eruption appeared in the form of an exanthema resembling measles, very acutely, evenly distributed over the surface of the body, most imperfectly developed on the extremities, and entirely sparing the face. I have seen the eruption in only two cases in my private practice, in both of which it showed itself on the eighth day after vaccination, and disappeared after having lasted two days. As I have the opportunity of seeing the children receiving public vaccination only on the seventh day after the operation, I am unable to say how often such erythemata appeared *after* this period; but the mothers sometimes informed me that their children had presented such eruptions on the day after vaccination, but that they had soon disappeared, and were no longer visible when I saw them.

A second group of exanthemata was composed of urticarial eruptions. These also appeared on the day after vaccination, and passed off in the same short time, so that I could not find them on the seventh day, and became aware of their existence from the communications of the mothers alone.

The third group was composed of erythematous exudative processes. These eruptions were exactly of the character of erythema exudativum multiforme, and came under observation in two cases, in the form of eruptions spreading over the whole body, with their typical localization on the backs of the hands and feet. On the seventh day they had already undergone the characteristic transformation in form and color. In one case the mother stated that the eruption had begun on the second day, and had spread from the backs of the hands and feet, where it first appeared, over a large extent of surface. In the second case, which occurred at the same time as the other, the conclusion that the eruption had appeared at the same period could be drawn only from the

transformation and progress toward healing of the lesions. In another case the vaccinal eruption appeared in a vesicular form, having in some places the character of a herpes; in others, that of a grouped eczema. The mother stated that the first groups of vesicles had shown themselves on the day after vaccination—at first on the left arm—and that while these were drying up, other similar groups had daily appeared on remote parts of the body. On the seventh day, in confirmation of this statement, I found dried vesicles on the left arm, and groups of vesicles with milky, cloudy contents on the rest of the body, particularly the face and legs. After the vaccine pustules had dried up, the eruption disappeared spontaneously. In another place I shall refer to a second entirely analogous case.

The last form which came under observation was a bullous eruption, which was met with only once. It occurred in the case of an entirely healthy, well-nourished boy, nine months of age, in whom isolated bullæ appeared upon the face as early as the evening of the day of vaccination, which were added to by the appearance of other eruptions on different parts of the body in the course of the next day. On the eighth day after vaccination the oldest eruptions were partly healed and partly transformed into a thin brown scab, while others, according to their ages, presented cloudy and milky or clearer contents. The eruption disappeared under simple treatment (bran-baths etc.).

From these observations we learn that there may appear upon the skin of certain individuals in the course of the process of vaccination, in addition to the macular eruption which alone has been hitherto described, very distinct forms of inflammatory exudative processes, which, as I must also state, have no influence upon the normal course of vaccination, and must be regarded as accidental phenomena attendant upon it.

With reference to the pathogenesis of vaccinal eruptions, some of our French colleagues, referring to certain vesicular and pustular eruptions, speak of a "vaccine généralisée." This expression is based upon the view that, in entire analogy with variola, a general manifestation of the vaccine poison is present, or general eruptions, such as were not rarely encountered by the small-pox inoculators of the last century, the Sacco, etc., and which no doubt also induced Hutchinson and William Stokes to speak of a "vaccinia gangrænosa." A general vesicular eruption is, however, not a general eruption of vaccine lesions, not even when the vesicles resemble the latter in external appearance, and are developed simul-

taneously with them; they are indubitable vaccine pustules only when it can be proved that their contents are inoculable and capable of producing normal vaccine vesicles. Strange to say, such observations are found only in the older literature of vaccination in its earliest period, while all later observers of general vesicular eruptions following vaccination have failed to prove the inoculability of their contents, and are, therefore, in my opinion, not justified in speaking of a "vaccine généralisée." Just as little as with these authors can I agree with Friedinger, who recognizes in roseola vaccinia the most convincing proof of the action of the vaccine matter upon the organism in general, and believes that it bears the same relation to vaccine lymph as the eruptions of measles and scarlatina do to their specific contagia. However, that in this case other conditions are present, so that in the case of vaccinal eruptions there can be no question of a specific action of vaccine matter, is shown by:

1. The polymorphous nature of vaccinal eruptions. So great a variety as is here met with is hard to be reconciled with our views of the specific nature of contagia and of the morbid symptoms which they produce. The contagion of measles and of scarlatina, and also the poison of small-pox, which is so nearly related to vaccinia, do not vary in their effects in passing from individual to individual, as do vaccinal eruptions, but rather produce in all persons upon whom they act, definite, and in all cases very characteristic symptoms, of such uniformity that we are able from them to form conclusions as to the nature of the contagion which has been at work in a given case; that there has never been a case in which, *e. g.*, the contagion of scarlatina has produced in one person an exudative erythema, and in another a vesicular, bullous, or pustular eruption of the skin.

2. The period during which the first appearances of the vaccinal eruptions are seen, or, more exactly, during which the eruptions begin, also speaks against their specific nature. On this point the statements of authors vary (they refer, of course, only to roseola vaccinia) in tolerably exact accord with their nationality. While German authors give from the third to the eighteenth day after vaccination as the period of eruption, English and a few French colleagues place it at the ninth or tenth day. A more careful study of the facts shows that in this, the German writers have simply followed the authority of *Bednar*; the others that of *Willan*. In opposition to these statements, I must refer to the fact that both in the cases reported and in another to which I shall allude

later, the beginning of the eruption never fell within the period of from three to seven days after vaccination, the eruption in two cases appearing on the eighth day, and, in the others, in the course of the first three days. It follows from this that, in the course of the process of vaccination, there are two entirely distinct periods in which the eruptions occur, of which the first begins on the second day at the latest, and the second on the eighth day after vaccination. If the attempt is made to attribute the vaccinal eruptions to a specific action of vaccinia, one is involved in a contradiction, because the eruptions of the first stage appear in the period of incubation of the vaccine virus, and those of the second at a time when it has already completed its action upon the organism.

3. Against the specific nature of vaccinal eruptions there also speaks the fact that we observe exanthemata of an exactly similar character after the action of other agents, particularly drugs. These also sometimes produce eruptions, presenting entirely different aspects in different persons, and which, as I have shown in my publications on medicinal eruptions, are not due to a specific action of the drug. As regards medicinal eruptions, the mere presence of foreign material in the blood may be the cause of acute affections of the skin; thus we sometimes see, after the absorption of pyæmic material into the blood, or after accidental injuries, labor, or operations of even trivial importance (in these cases probably in consequence of the absorption of the secretions of the wound or *debris* of tissue), this or that form of acute eruption appears upon the skin, to which vaccinal eruptions should be regarded as entirely analogous.

Under these circumstances, the appearance of vaccinal eruptions proves nothing more than that, in the affected individuals, a foreign material is circulating in the blood, which, in the case of the eruptions of the first period, must be the vaccine lymph itself; on the other hand, we are no longer justified in attributing the eruptions of the second period to this agent, but since their appearance coincides with the beginning of suppuration, must rather ascribe them to the absorption of the contents of the pustules.

In addition to the abnormal composition of the blood, there is also essential to the causation of such eruptions, a certain predisposition of the individual,—a certain sensitiveness of the skin to irritation, since not all persons who suffer from such a diathesis become the subjects of skin diseases. This is shown by the fact that every one of the children were

vaccinated at the same time, together with from twenty to thirty others, and from the same virus, without one of the others being affected.

Therefore, we are compelled to acknowledge a diathetic origin for certain cases of skin disease. It has been recently established, particularly by Lewin, that the nerves play a certain part in the causation of all these affections; nevertheless, in the cases under consideration, the influence of the nerves can by no means be regarded as primary, for whatever rôle may be ascribed to them in the genesis of such diseases, some irritant is still necessary to cause them to react in this manner. The primary cause must, threfore, always be found in the alteration of the blood, and a knowledge of the forms of eruption now under discussion necessarily leads us to the recognition of a hæmatogenetic origin, not only for certain acute eruptions, but also for many cases of chronic skin disease. For although the vaccinal eruptions are intrinsically of a benign nature, and, as a rule, undergo spontaneous involution, they may, under certain circumstances, in the case of individuals specially predisposed thereto, lead to the production of annoying results, prominent among which is eczema. During the past year I vaccinated a somewhat rachitic child with a swollen abdomen, which had a small spot of moist eczema behind the left ear. On the seventh day, besides a few, large, isolated pustules and some dried vesicles of pin-head size, there occurred not only a spreading of the already existing lesion, but on several other places, especially the face, various groups of eczematous eruption appeared, which lasted several months after the vaccine pustules had healed, and gave rise to secondary glandular swellings.

These occurrences aid in the explanation of a fact which has long been known, but which, incorrectly understood, has given the opponents of vaccination a pretext for their agitations against the practice. I refer to the accusation that scrofula may be transmitted by vaccination. In many instances those making this charge have had the occurrence of eczema in mind, and there is no longer any doubt that in the cases of children whose skins are disposed to become affected by eczema, this disease may be developed by vaccination in exactly the same manner as in others roseola, urticaria, and exudative erythemata are produced; and, as eczema very frequently follows closely upon vaccination, and persists after the disappearance of the vaccine pustules, and may leave behind it glandular swellings, the impression is thus given

that scrofula has been transmitted by the vaccination. I have frequently seen eczema appear after vaccination, although I never use lymph from scrofulous children. When a child is attacked with eczema after vaccination, the blame should be ascribed, not to the vaccination, but rather to the individual susceptibility to irritation of the child, and those persons who make such an occurrence the ground for an agitation against vaccination, must, as a logical consequence, object to the use of drugs, since these agents also sometimes cause eruptions which possess the same significance as vaccinal eruptions.

I desire to call attention to the complete analogy between these vaccinal eruptions and certain others occurring in variola patients. In these also, eruptions are observed in two entirely distinct periods of the disease, the early forms appearing before the eruption of variola, in the prodromal stage, and hence called prodromal-exanthema, while others show themselves later during the stage of maturation. This analogy of the eruptions accompanying variola with vaccinal eruptions proves that a foreign element is circulating in the blood, and that, therefore, the prodromal exanthema of variola does not possess the prognostic significance which is generally attributed to it.

Curious Knotting of the Hair Producing an Appearance Similar to the Nits of Pedicula Pubis.—L. Duncan Bunkley, A. M., M. D., Editor of the *Archives of Dermatology*, in the October number, 1881, of his excellent journal, reports the following peculiar and entirely novel case. While it is not uncommon to have the hair twisted and curled upon itself just within the follicle, he does not know of any observation extant in which such a twisting and knotting occurred in the length of the shaft.

Mr. Wm. —— had been seen by me for eczema of the scrotum once previous to his visit October 23, 1878, with the condition to be described. For six years he had suffered from itching about the scrotum and pubic region, and had himself used various remedies and quack medicines to a large extent during that time. When first seen, he complained mostly of itching, and also of considerable sweating of the parts. Many of the hairs presented what appeared to be small excrescences upon them, and so closely did they resemble nits that even the eye could not detect their true nature when the hairs were removed and held in the hand. He has given the following ointment: ℞. Olei Cadini, ʒi; Unguent. hydrarg. ammon., ʒiv; Unguent. aquæ rosæ, ʒiv.

Mix. To be freely applied; also an alkaline tonic and some laxative pills. The ointment relieved the itching almost immediately; a month later he considered himself quite recovered, and was improved in health; he had taken in addition five sulphur vapor baths. Several weeks afterward, while making some microscopic preparations, Dr. Bulkley found that what he had considered to be nits consisted in a very curious sort of a double knot on each hair; a number were examined, and all presented the same appearance. The hair was simply knotted upon itself, and not in a simple manner, but with several turns, which could be very easily traced when magnified. This knotting seemed to occur at about the same distance from the skin on each hair, namely, at about an inch from its exit from the follicle.

The cause of this peculiar condition is entirely unknown to Dr. Bulkley. Only a certain number of the hairs were thus affected—exactly what proportion he cannot say, as the patient has not been seen since he obtained relief from the itching. The hairs appeared to be in a perfectly healthy state, and, with the exception of the condition described, did not differ from any other hairs of the pubis.

Select Formulæ for Ingrowing Toe-Nails, Sweating Feet, Offensive Perspiration, Burns and Scalds, and Headache.—L. H. Washington, M. D., contributes a series of well compiled formulæ for these several troublesome affections, to the *St. Louis Eclectic Medical Journal*, October 1881:

Ingrowing Nails.—For this troublesome and exceedingly painful affection, a saturated solution of persulphate of iron is recommended. A bit of cotton wool saturated with this is insinuated between the fungous flesh and the nail, letting the cotton turn back over the flesh on the outside also. Much of the success depends on the thoroughness with which the cotton is pressed to the bottom or edge of the ingrowing nail.

Caustic potash, ℥ij; water, ℥j. Mix. Apply twice a day. This soon causes the granulated surface to recede, and then by inserting a wedged-shaped piece of cork, the cure is completed.

Cut a notch about the shape of V in the end of the nail, about one-quarter the width of the nail distant from the ingrowing side. Cut down as nearly to the quick as possible, and one-third the length of the nail. The pressure of the boot or shoe will tend to close the opening you have made in the nail, and thus affords relief. Allow the ingrowing

portion of the nail to grow without cutting it until it gets beyond the flesh.

To keep the flesh from the nail will effect a cure. A strip of lint covered with simple cerate may be carefully inserted between the nail and flesh. But prompt recovery will most generally attend the use of collodion, painted over the sore part with a camel's hair brush.

Make a bridge of muslin from the great toe to the third, and allow the middle toe to rest on this bridge; this effectually removes the pressure from the great toe, and the parts eventually get well.

Do not remove any portion of the nail; let the patient wear a roomy shoe; once or twice a week scrape the entire surface of the nail lightly, pack a bit of cork or pledget of lint, by means of a fine knife blade, under the corner of the nail, and let the entire nail, corners included, grow out clear of the toe, when it may be trimmed by cutting it off square. With a little patience and perseverance a radical cure may be expected.

After trimming the nail so as not to wear the stocking, scrape a narrow strip on the top of the nail from the skin to the front edge, as thin as possible; then cut out a V shaped piece in the centre of the edge, with the point of the V running in the thin scraped place just far enough not to draw blood. This, repeated once a week, has proved a permanent cure in every case tried, and has the advantage of being done by the patient at home.

Sweating Feet.—If the case is not an aggravated one, bathing the feet daily with alum water may lessen the secretions.

The following powder is a great preventive of perspiring and sore feet: Salicylic acid, three parts; starch, ten parts; powdered soap-stone, eighty-seven parts. Mix. Apply dry. If walking, use daily; otherwise every two or three days. It takes off the irritating influence of the perspiration, and prevents, in consequence, the soreness. Powdered anise-seed is similarly used in hot weather.

Offensive Perspiration.—℞. Permanganate of potash, ℥iss; water, ⊙j. Mix. Put a tablespoonful of this in an ordinary foot tub, about one-fourth full of warm water, and bathe the affected parts three times a day at first; after several days, once a day. Dust with potato-starch or lycopodium after carefully drying.

Pure water, one quart; tincture of myrrh, one ounce; sulphate of zinc, one-half ounce; rose water, two ounces. Mix. Sponge the parts occasionally.

Chloral hydrate, one part; water, 100 parts. Mix. Wash the parts with this twice a day, and keep them enveloped in compresses wet with the same.

Burnt alum, ℥v; salicylic acid, ʒiiss; wheat starch, ℥xv; powdered soap stone, ℥vj ʒij. Mix. Dust on the feet and in the stockings daily. May also be used for the armpits and groins.

A solution of common soda freely applied to the armpits, feet, etc., will often remove offensive perspiration.

Salicylic acid, bromide of potassium, $\overline{aa}$gr. x; cosmoline, ʒij. Mix. A few bathings and anointings with this will correct the unpleasant odor.

The hypodermic injection of nitrate of pilocarpin has been found to relieve fetid perspiration of the feet.

Tincture of eucalyptus, ʒj; chloral hydrate, ʒj; water, ⊙j. Mix. Sponge the parts occasionally. This is an excellent deodorizer.

Burns and Scalds.—Camphor, tannin, each one part; sulphuric ether, eight parts. Mix. Apply every three hours. This is very efficacious in burns of the first or second degree; the heat disappears rapidly, and blisters do not form.

Collodion, two parts; olive oil, one part. Mix. Apply to the burn. Very efficacious in burns of a superficial character.

A very neat and satisfactory dressing in superficial burns consists in coating the surface with mucilage, and then covering with powdered lycopodium.

The following is a favorite lotion for burns at the Charity Hospital, New York: Sulphate zinc, gr. xv; compound spirits lavender, ʒj; water, ⊙j. Mix.

Common cooking soda—the bicarbonate—has been found to cure burns or scalds, affording prompt relief when it is quickly applied. For a dry burn, the soda should be made into a paste with water. For scalds or wet-burned surfaces, the powdered soda (or borax will answer) should be dusted on.

The following is one of the best applications for burns or scalds, more especially where a large surface is denuded of the skin: ℞. Finely powdered alum, ʒj, and mix thoroughly with the white of two eggs and one teacupful of fresh lard; spread on a cloth and apply to the burned part. Change the application at least once a day. It gives almost instant relief from pain, and, by excluding the air, prevents inflammatory action.

The sudden relief of the pain of burns, which attends the application of a solution of the French chloride of soda, ʒss,

in a quart of water, is truly astonishing. Apply by means of cloths dipped into it and kept wet. If it fails to give relief, you may suspect the impurity of the soda, or that the solution is too strong. If its antiphlogistic effects be desired, it must give no pain when applied.

℞. Yellow wax, ℥j; linseed oil, ℥iij; tannin, ℥j; subnitrate of bismuth, ℈j. Heat the wax, add the oil, and stir; when cold, add the tannin, and lastly the bismuth. Apply on soft cloths.

Anything that excludes the air, and is unirritating, will answer as an application for burns. Common flour dusted thickly over the burnt surface is very soothing. Linseed oil on cotton batting, and occasionally moistening the first application of cotton, without changing, is a remedy equal to any. White lead and linseed oil mixed to the consistency of cream (white paint), applied with a soft brush and covered with cotton batting is unsurpassed.

In the treatment of burns or scalds observe the following rules: (1st.) Remove the clothing by cutting it from the body; (2d.) Wrap the patient with blankets; (2d.) If the pain be excessive, administer chloroform, ether, or a large dose of opium, and let the necessary dressing be made while the patient is in a state of partial or total insensibility; (4th). After this, wrap the patient in masses of cotton batting; (5th.) Avoid brandy or other alcoholic drinks, and give coffee as a stimulant.

Headache.—In severe nervous headache, one grain of creosote taken in a cup of clear, strong coffee, is often speedily effectual.

In sick headache, heart-burn and acid stomach, about forty drops of aromatic spirits of ammonia, taken in a wine glass of water, will frequently afford quick relief.

Persons who do a great deal of brain work are often the subjects of fierce headaches, due to hyperæmia of the nerve substance within the cranium. Tincture of pulsatilla in drop doses every two to four hours in a tablespoonful of water has been found of great service in such cases.

Oxalate of cerium, about three grains, taken dry on the tongue, sometimes acts like magic in relieving sick headache. The dose may be repeated as often as necessary.

Use of the Microscope in Consumption.—Dr. Ephraim Cutter, formerly of Boston, but now of New York city, contributes a valuable paper on this subject to the *American Journal of Microscopy*. He calls special attention to the value of

the microscope in the diagnosis of lung necrosis and disintegration.

It is a familiar fact that in consumption generally (not always) the lungs break down in their structure, leaving cavities. Dr. Salisbury compares the ravages and tissue destruction in pulmonary consumption to the ravages of dry rot in timber, both being caused by fungus growths or vegetations. The writer bears witness to the truth of this position. When the lungs break down in consumption this necrosis and sloughing is positively shown by the microscope more decidedly and long before, in some cases, any ordinary physical sign of exploration. Again, by the use of the microscope, we can tell whether the lung disintegration is being arrested, and whether the necrosis has ceased to exist.

In the case of the timber rot, some of the connective fibres of the woody tissue resist the decay longer than others. Thus we have timber retaining its form and performing its duty, while none of its ducts and liber fibres are decayed. This results from the fact that the connective fibrous tissue of the vegetable parenchyma does not decay so readily, and holds out longer. It is so with the lung rot. The spongy nature of the lung is due to its histological elements embracing and being built up of elastic connective fibrous tissue that form the contractible and expansible network of the air cells.

Now, the *anatomical* demonstration of these fibres is not an easy matter, but the pathological demonstration in a case of consumption is not difficult. The disintegration caused by the fungus vegetation dissects out the connective elastic fibres with beautiful nicety and accuracy—as we see in vegetable dissections made by the processes of digestion undergone in traversing the alimentary canal. The soft parts are removed without disturbing the anatomical position and relation of the fibres; so that notwithstanding the physical disturbances met with in expectoration we often find the broken ovals of the air lung cells as perfect as it is possible to conceive them to be.

If an honest investigation of the sputa of a suspected consumptive reveals the presence of curling fibrous tissue arranged in ovals with one-quarter of the periphery broken out, or portions of such tissue not so symmetrically arranged, and such curling fibres don't polarize light, it is positive human evidence that the lung tissue of the person expectorating is *breaking down*, and some opinion as to its nature and extent can be formed by the abundance or paucity of the fibres.

Again, patients at a distance can forward their sputa for microscopical examination, and a great deal of positive evidence as to the real pathological condition of the lungs can be at once obtained, besides information given as to how the patients are progressing.

Again, impending hæmorrhages can be foreseen and light thrown on many practical therapeutical points that turn on the presence of destructive interstitial lung necrosis.

How the sputa is examined:

First Method (*Salisbury's*).—Things to be had: 1. A positively good compound microscope, one and one-and-a-half inch eye piece, one-fourth or one-fifth inch objective (Tolles's objectives answers perfectly). 2. A clean slide. 3. A clean cover. 4. The sputa from the consumptive. 5. Two bistouries. 6. A tea-cup. The sputa is put into the cup. The bistoury is engaged at its point in the sputa. The sputa is drawn up and out like a stick of molasses candy. Then dextrously a small portion, half the size of a pea, of what appears to be a dense part of the sputal cylinder is removed by the other bistoury and placed on the centre of the slide 2. It is then covered with 3, and evenly diffused in one uniform film under the cover. Any excess of sputa outside the periphery of the cover is removed by a bibulous cloth or paper. The specimen can then be turned in any direction, and it is then placed under the microscope and examined as any other object.

Second—Method of the Writer.—A. Things to be had: 1, 2, 3 and 4, same as above. 5. Two common wooden tooth-picks, clean, or, 6, wooden matches.

Mode A.—Same as above stated, save that tooth-picks replace the bistouries. Tooth-picks are so cheap that new ones can be used each time and thrown away. Their comparatively rough exterior when dry makes them "catch" the slimy mucus better than steel. They require less care and are less dangerous. Same remarks may be made of the proximal end of common lucifer matches.

B. In the study of the fauna and flora of hydrant drinking waters, I use a cell with brass side and with a glass bottom. Size about two-and-a-half by five-eighths by one-sixteenth of an inch. In connection I use a nice low-angled one-fourth-inch objective of about one-eighth-inch working distance. This combination allows the disuse of a cover and gives a much larger field on the stage to explore. When used for sputa the latter is deposited in the cell and teased out into an even film all over the bottom of the cell. It is

made so thin as to expose the whole substance to examination, and is rather less trouble than mode A, as it does away with the use of a glass cover, which is liable to be broken, but it involves the use of the horizontal stage. I use an Amici stand for *this work*, not caring if it is old fashioned, as it is easily and comfortably employed, more so than the best Zentmayer in this special instance. The sputa may be placed on a common slide also.

Third Method.—Boil the sputa with an equal bulk of caustic soda in solution (twenty grains to the ounce of water), and examine the sediment. This is Dr. Reginald E. Thompson's mode, taken from his work on the "*Physical Signs of the Diseases of the Chest*"—H. Renshaw, London, 1879—the best, most compact, and most admirable compendium we know of.

Diagnosis—Polarized Light.—As the sputa may come from any part of the air passages, and as foreign substances floating in the air are apt to be inhaled, it is expected to find in the expectoration many things normal and abnormal. The diagnosis is based on: 1. Internal evidence. The tissues are so characteristic as to be *sui generis* and recognized at sight, like a rhizopod or a desmid, for example; but should a fibre of cotton, bast, or linen fibre be so macerated in the expectoration and rolled in its movements as to break up into fine fibrillæ they may become twisted, and so disposed singly and collectively as to resemble lung fibres.

2. The polariscope decides at once, as the lung fibres do not polarize light. Also the detection of starch coming from the food is easy. Thus lately I detected a patient in eating potatoes, which she had been restricted from in the diet. The following are among those things found in the examinations of sputa for elastic lung fibres in suspected cases: cotton fibre, silk fibre, linen fibre, wool fibre, pitted ducts, amorphous organic matter, dust and dirt, mucus corpuscles, mucus corpuscles distended with cystine, epithelium, ciliated and not ciliated, asthmatos ciliaris, crystals of cholesterin, cystine, skeins of mycelial filaments, yeast sporangia, swarms of spores, so-called bacteria, mycelial filaments of fully developed yeast and other fungi, leptothrix buccalis, potato starch, red-blood corpuscles, muscular fibres of food, starch, wheat, hairs, portions of feathers, pus, so-called granular tuberculous matter, sometimes fetid in odor, spirillum, vibriones, micrococcus spores, gemiasma verdans, the whole lumen of a vein just before ending into the capillary, uric acid, oxalate of lime, lung calculi made by some of the bodies named, vegetable food elements, etc.

The amount of sputa or its physical characters macroscopically do not always indicate the presence of lung fibres. Sometimes a surprise meets one, as lately in the case of a good-looking, medium-aged and sized woman, with but a few marked physical signs of consumption, when requested to spit, raised some white aerated and frothy mucus, which was supposed to come from the throat, and yet was found filled up completely with curling fibrous tissue. The expectoration was what is usually called a "small spit." This demonstration showed the microscope to be far ahead of ordinary physical signs.

When one considers the prevalence of consumption, its fatality, and the acknowledged importance of an early and accurate detection of the organic lung lesion for diagnosis and treatment, we do right to call attention to the indispensable use of the microscope in the study of this human excretion in consumption.

Is the Obstetric Binder Necessary?—Henry P. Wenzel, M. D., of Milwaukee, member of Committee on Obstetrics, as reported in the recent *Transactions of the State Medical Society of Wisconsin*, thinks the binder is not only useless, but oftentimes positively injurious, when applied shortly after labor is accomplished. If loosely applied, it exerts no influence on the abdominal parietes; if too narrow, it becomes a constrictor, a positive cause of hæmorrhage; if too snugly drawn, it causes discomfort, pain, tenesmus. After the bandage has been secured, and an examination made a few hours later, it will be found, generally, at the lower border of the thorax, or, perhaps, rolled together above the iliac crest.

The obstetric bandage is worn for safety and comfort, we are told; but it appears to be *most comfortable* away from the uterine region—away from doing harm. It is only a useless impediment, supporting where support is not necessary and leaving the relaxed abdominal walls to take care of themselves.

Schroeder, in his *Obstetrics*, does not mention the bandage at all, and we naturally infer that he does not use it. In the Munich Lying-in-Department, the obstetric binder is interdicted. Many German obstetricians object to the binder, and not a few condemn it Siebold says: "During this time the woman must be carefully watched—pulse, skin, temperature, facial expression—and a watchful eye must be kept on the uterus that instant assistance may be rendered

in flooding." "But the abdominal skin perspiration must not be interfered with." "Unnecessary and even dangerous is the practice of tightly bandaging the belly of the parturient patient immediately after birth. If a bandage is applied, it should be a wide piece of flannel, to retain a moderate, equable temperature; but all pressure on the internal organs must be avoided." "Later, when the woman has already left her bed, a wide, [elastic] knit bandage, which neatly supports the abdomen, may be worn. That which women wish to attain by bandaging, prevention of a too prominent belly, is more easily obtained by washing the abdomen with lavender spirits, etc., which should be permitted only from four to six weeks after birth." (*Lehrbuch der Geburtshilfe* von Ed. Casp. Jac. von Siebold, Braunschweig, 1854, page 341, *et seq.*)

In an obstetric manual for midwives, first issued in 1771, by M. Solayers, subsequently revised by Baudeloque, and later by Lebaud, we read, page 163: "To prevent prominent belly by tight bandaging is fraught with great danger."

Cazeaux writes, "But in order to obtain all these benefits, it [the binder] should be large enough to compress the whole sub-umbilical region equally. Care should be taken to prevent its becoming doubled up, whereby a circular cord is formed, which, by opposing the ready return of the fluids, would then prove a cause of hæmorrhage. The body bandage may be replaced with advantage by a folded cloth applied flat upon the abdomen, which it compresses gently by its own weight, which is sufficient for the purpose" (page 406).

The principal reason for bandaging the abdomen, is to reduce the relaxed abdominal walls to the *ante*-pregnant state; but the signs of pregnancy and parturition cannot all be eradicated by any bandage, however snugly applied. In surgery, we refrain from constricting an atrophied or relaxed member, fearing to increase the lesion, but in obstetric practice the reverse obtains—a marked inconsistency!

Viewing the binder from a physiological standpoint, it is not only unnecessary, but an obstacle interfering with the superficial circulation and damming it into the pelvic cavity, which at this time is not only gorged with blood from the physiological activity just passed, but the generative tract is more or less bruised and lacerated, and the interior of the womb at the placental site presents a large wounded surface; and these legions—the pelvic vessels being surcharged with blood—may become foci of flooding. If the binder is ap-

plied tight enough to serve its object—compression—it will naturally cause what it was intended to prevent, viz., flooding. The inferior animals are not tortured with Russian bandages.

Parturition is a normal, physiological process. Has the female economy deteriorated by the progress of advanced civilization, that the uterus has lost its inherent power of taking care of itself, or have the nerves lost their governing, and the striped and unstriped muscular fibres their contracting power? Has the uterus become a *locus minoris resistentia*, that the binder must be used under the cloak of sympathy? or does fashion, or, if you please, custom, dictate the use of a dangerous ambush that may destroy the patient? It is certainly contrary to natural laws, and abused nature avenges herself in many ways by bad "getting up." There is no doubt that many female troubles are born in child-bed, brought forth indirectly by the customary bandage! The only reason for its use is to follow a traditional custom.

Does the binder exert an equable and constant pressure on the abdominal parietes and uterus? The sub-umbilical surface is an irregular, convex surface, bounded laterally by the ilii, and below by the pubes,—projecting bone prominences, that interfere when gentle compression is sought by a bandage; hence, a "pad" is forced under the bandage to increase the irritation, causing intense pain, and rectal and vesical tenesmus at times. Constant equable pressure can be carried out on a stationary, spherical body, like the uterus, whose external surroundings present no inequalities.

The uterus constantly changes its position after labor during the first twenty-four to seventy-two hours, and any perceptible pressure exerted on that wounded and very sensitive organ produces irritation, and, in accordance with well-known physiological laws, the body, or part irritated, recedes from the irritating focus, and the uterus slips away from the compressing force. Hence, if a constant and equal pressure must be enforced, the binder becomes an animate being, with perceptive discrimination, and moves to the loins or thorax, where it is out of harm's way. I have seen cases in which the astute binder caused much annoyance and even severe suffering, and its removal produced comfort and quiet repose. Of course, it will be said the bandage must be applied "with judgment;" true, but one patient is sensitive, another indifferent, etc., and a correct discrimination in all cases is impossible; midwives constrict the abdomen tightly.

So long as the patient is confined to bed, the bandage is

useless as a support to the relaxed abdominal wall, for there is no pressure exerted on the parietes from within until the patient is permitted to rise. Then, if the support is not properly applied, it slips upwards and forces the intestines down and out upon the relaxed tissues which are so well (*un*)supported(?) by the binder.

Is the binder a safeguard against flooding? Direct or somewhat severe pressure is required to check hæmorrhage from any large, bleeding surface; but that cannot obtain in a moving, globular body in a capacious cavity, unless a compressor is applied, and then pain supervenes, either from the uterus, the rectum, the bladder, or other structures upon which the pressing force is exerted. But, it will be remarked that the uterus contracts by virtue of a *vis a tergo* inherent in itself. True again; but why apply a bandage at all? It does *not* cause contraction; it does *not* guard against relaxation—consequently, does *not* prevent flooding. It does produce irritation; may interfere with the circulation, and produce flooding by constriction. Then, in the name of common sense, for what is the binder used? For an ornament? No; ornaments are worn in more appropriate parts of the body!

The binder is useless in exhaustion as well as relaxation, etc.; hence, it is worse than a scare-crow of straw, and is a positive detriment to the patient as well as the attendant. Facile examinations are hindered by the binder's pesence, for the obstruction must be put aside when careful manual exploration is made. *Ergo*, the binder is useless.

I have seen cases of terrific flooding, yet there was no show externally of hæmorrhage, save the blue lips, pallid countenance, feeble pulse, etc., and fainting, or syncope. The patient's belly was tightly bandaged by the midwife, but the bandage had become displaced upwards, and the uterus was fully relaxed and full of fluid blood. The attendants stated that the obstetrician had assured them that no danger threatened, but the transcendental binder slipped up and pressed the blood down! The bandage, *in situ*, may permit relaxation and flooding, as I have observed in one case.

In my last forty cases I was divorced from the binder, and have no cause for regret. The patients did not suffer by its absence. There was no tenesmus, no binder's pain, no ambush; there was no indication of hæmorrhage. After the patients are allowed to ambulate, a supporter, bandage, or binder may be allowed to support the abdominal parietes comfortably. If the bandage is noted for its absence during the lying-in period, the patient can be watched and examined

without inconvenience, or she can be instructed to make frequent examination, observing that the globular uterus remains well contracted, and should it relax there is time for instant action. Safety lies in a well-contracted uterus; danger in relaxation. Absence of the customary binder causes greater watchfulness, and prevents needless annoyance and loss of time.

The Cure of Acute Glaucoma by Sulphate of Eserine.—Dr. C. J. Lundy, Professor of Diseases of the Eye, Ear and Throat, in the Michigan College of Medicine, Surgeon in Charge of the Michigan Eye and Ear Infirmary, etc., of Detroit, in a paper read before the Michigan State Medical Society, at its session in Bay City, June, 1881, says that the term glaucoma is applied to an aggregation of symptoms, the chief one of which is increased tension, or hardening of the eye-ball, although the name itself would convey no such idea.

In 1856 Von Græfe recognized the fact that some means of reducing this intra-ocular tension and of perverting its recurrence must be resorted to in order to check the disease. He suggested iridectomy, and history records the correctness of his views. For a quarter of a century iridectomy has been accepted as a warrantable procedure. Within the past two or three years, however, a few cases of cure of acute glaucoma have been reported in which neither iridectomy nor sclerotomy had been performed. The object of his paper is to put upon record another case in which the results were most gratifying. He has waited a reasonable time (one year) before reporting the case.

Joseph A. G., æt. 24, of sober, steady habits, occupation dry goods business, consulted him June 11th, 1880. Right eye normal in all respects. Three days previous to consultation the left eye became congested, irritable and painful, and pain increased till it prevented all rest or sleep. In looking at the flame of a lamp or gas jet with this eye, a halo or colored ring surrounded the light. Vision was blurred soon after the beginning of the attack, and at consultation he was only able to count fingers at one or two feet. He complained of severe pain in the eye-ball, supra-orbital region, temple and side of the head. There was intense ciliary congestion, and lachrymation was profuse. The pupil was widely dilated and immovable, and the interior chamber was quite shallow, while the eye-ball was of stony hardness; tension 13. There was a hazy condition of the cornea and vitreous humor. The retinal vessels were congested, but no

pulsation of the central retinal artery could be observed, although it might have existed. There was no cupping of the optic disc.

The patient objected to an operation, and earnestly entreated to try other means. Knowing that eserine would reduce intra-ocular tension where that was above the normal, and knowing that Prof. Knapp and others had reported a few cases of glaucoma cured by eserine, he concluded that this would be a fair case in which to test the merits of the drug. He applied four leeches to the left temple. They filled well and bleeding was kept up for five hours. During the first two hours a few drops of a two grain solution of the eserine sulphate were instilled into the eye every fifteen minutes. After this, the patient was permitted to return home, and was instructed to put into the eye a few drops of the eserine every hour. Next day he returned, saying that his pain was much relieved, and that he could see better. The ciliary congestion, however, was much diminished, intra-ocular tension was materially reduced, and the pupil was not so widely dilated, although it was still larger than normal. A continuance of eserine every two hours was advised, and the patient was directed to return next day. Then he reported that he had slept several hours during the night, and that he was almost free from pain. All symptoms were much more favorable, and the tension of the eye-ball was only slightly above the normal. At the end of four days all glaucomatous symptoms had disappeared, and the patient considered himself well. As a matter of precaution, he was advised to use eserine twice daily for several days longer, and to report at once if all did not go well. Two weeks later vision was found to be normal in all respects.

On March 23d, 1881—more than nine months after the attack—he was well in every particular. He had not had the slightest return of his trouble, and had used his eyes a great deal in reading at night. On examination, vision, with either eye $=\frac{20}{xx}$ of Snellen's test types, and Jæger No. 1 could be read with ease at any point between six and fourteen inches. The ophthalmoscope revealed a normal fundus oculi without any tendency to cupping of the optic disc.

The present condition of the patient is infinitely better than it would have been had an iridectomy been performed. His circular pupil, which contracts and expands in response to the stimulus of light, is much better for visual purposes than a "key-hole" shaped pupil with a large section of its sphincter muscle removed.

While the Doctor does not claim that eserine will be found equal to the emergency in all cases, or that it should supercede iridectomy, he thinks a certain number of cases of *acute* glaucoma will meet the indications.

The disease may arise from a variety of causes, and while some of these causes are removable at an early stage, others are not removable. In the future, the *modus operandi* by which eserine effects a cure in acute glaucoma will be better understood. At present we must content ourselves with saying that it acts powerfully upon the non-striated muscular fibre of the small vessels and of the ciliary muscle.

In the Royal London Ophthalmic Hospital Reports, Priestley Smith advances the idea that in certain eyes there exists a condition which predisposes to glaucoma, and that in such cases "venous turgesence, arterial hyperæmia, or increased secretion" may excite an outbreak of the disease.

Max Knies, Adolph Weber, Brailey, Priestley Smith, and others have done much to establish the fact that any interference with the escape of lymph from the anterior chamber of the eye through certain spaces and canals, located at the corneo-scleral margin, leads directly to the glaucomatous condition. It will be readily understood that any forward pressure on the ciliary margin of the iris must so encroach upon the spaces at the angle of the anterior chamber as to interfere with the escape of lymph at this point. Thus, any undue pressure in the vitreous chamber, or any increase in the size of the ciliary body, whether this be due to venous turgescence or arterial hyperæmia, *may* act as the *cause of a cause* in the production of glaucoma.

Eserine causes contraction of the blood vessels and relieves the hyperæmic condition; and by this action, it may in certain instances, remove the first exciting cause of the disease. It also produces powerful contraction of the ciliary muscle, and it is probable that this may also have its influence in bringing about a reduction of the intra-ocular tension by favoring more rapid exosmosis.

Then followed a discussion. Dr. Leartus Conner, of Detroit, noticed in the paper, as also in several cases of his own, that similar results have been reached by the use of eserine, but the patients were young, relatively. Usually the disease comes on later in life, and during the retrograde metamorphoses that occur after adult life, in the decline of life. Personally, he has never had an opportunity to use the remedy on a young person. In persons of middle life, he has tried and failed—iridectomy or sclerotomy being finally forced

upon him. In the earlier periods of life the tissues respond to remedies better than at later periods, say at the ages of 40 or 45 years. He cited a case in illustration. A man brought his young son to him with a severe and painful injury of the eye in the sclero-corneal region, from an explosion of a gun cap. The father, for three nights successively, sat up with him. On the fourth day he himself complained of having had severe pain in the eye the night before. There was much tension and congestion about the eye. The retinal artery was enlarged. Iridectomy was suggested and refused. He then used eserine and applied leeches, but all to no effect. The third or fourth day afterwards, he consented to an iridectomy, which was performed with good result. All ophthalmic surgeons used eserine with avidity, but they now think that it is not safe to depend upon it.

Dr. Hugh McColl, of Lapeer, said: The use of eserine has proved successful in a portion of cases in young persons. But is it safe for us to depend upon it? In a great part of the cases in which the drug has been used it has failed. It requires very careful watching. Eyes have been destroyed where it was used for a length of time, and iridectomy was then rendered impossible. While eserine may be valuable by careful watching, we should not put too much confidence in the remedy and leave the eye too long without operating.

Dr. Lundy stated that it was only in *acute* glaucoma that we found the remedy valuable. The time will come, when, with better means of investigating glaucoma, it will be found to include more than one disease. Eserine is only of service in acute glaucoma, and at a certain stage of the disease. In Dr. Connor's case, glaucoma was due to injury. We do not expect benefit in these cases. He always hesitates to perform iridectomy. An iridectomized eye is an injured eye; and though a better eye than before the operation, it is by no means a perfect one.

Dr. Connor: It was the father—not the boy—and the cause a mental one.

Dr. J. E. Brown, of Monroe, was reminded of a case. A young girl, fleshy, age 17, was treated first about four days by another physician. When he saw the patient, vision was almost obliterated. He proposed iridectomy, but could not gain the consent of the friends. He used eserine vigorously, with cathartics, leeches, and low diet. For several days he saw no improvement. The patient became totally blind. At the end of five days, however, vision began to return, and after its persistent and careful use for three weeks, her vision

was nearly normal. Pain was present until the third day after the treatment began, and then subsided gradually.

Dr. Connor inquired how long ago the case occurred?

Answer. Last fall. There has been no recurrence of disease. Eight years before, he treated the patient for ulceration of the cornea of the same eye. She was of a scrofulous diathesis. In the treatment he followed the tonic plan. She requires a glass to read, but is able to read common newspaper print. Half an hour's reading tires the eye.

Cocculus Indicus in Epilepsy.—Dr. C. B. Burr, Assistant Physician in the Eastern Michigan Asylum for the Insane at Pontiac, in the *Transactions of the Michigan State Medical Society*, 1881, says that the cases received at the Asylum are, as a rule, those of chronic, confirmed disease, requiring seclusion and restraint of liberty in consequence of great mental enfeeblement, or propensities which render them dangerous to society. They are cases in which outbreaks of maniacal fury occur at stated intervals in definite relation to epileptic seizures. Or again, those in which profound depression follows the convulsive seizures, and suicidal propensities are developed. They are almost without exception extremely irritable, disposed to do impulsive acts, and deficient in self-control. In each, mental impairment is more or less strongly pronounced, and all are regarded unhopeful in respect to prognosis. The majority of these cases have been under medical treatment for years, and most all of the orthodox medicines have, at one time or another, been administered, the hope of cure untimately being abandoned.

Striking results have followed the use of cocculus indicus in a certain class of cases, and the query arises—would these patients have been benefited permanently by the same line of treatment instituted at an earlier period?

Of ten cases of epilepsy in its various forms, five were found to have derived substantial benefit. It will be observed that striking similarity exists between the symptoms manifested by each.

Case I.—B. M., age 37, male, was admitted to the Asylum in January, 1880. He possessed a muratic organization, inherited from his parents, who were cousins. One of his brothers is a deaf mute; another brother and sister are partially mute. He himself was never bright, and had no education, but was able to assist in providing for himself until five years ago, at which time he received an injury while "logging." Shortly afterward he began to suffer from con-

vulsions. At first, they occurred once in four or five weeks; later they became more frequent, and at the time of admission, they occurred twice a week. He was placed in the Institution, owing to pyro-maniacal and homicidal impulses, and was brought securely tied with straps, and in a very much excited state. Convulsions were very frequent after admission, and attended by great mental confusion. He was extremely irritable and impulsive, and subject to hallucinations of vision, and entertained persistent delusions of suspicion and distrust. Once in four or six weeks, with great regularity, he would undergo an attack of maniacal excitement. During an outbreak, there would be utter absence of self-control, active delusions of poison, untidiness of habit, and an augmentation of unpleasant characteristics. He required restraints to prevent homicidal acts, and was rendered furious by the sight of visitors. Paroxysms lasted, as a rule, for more than a week; upon their subsidence, mental confusion, vague delusions of apprehension, and excessive irritability would persist for a longer period. At these times, he would prefer charges against the attendants and his fellow patients, and in an earnest manner recite the details of various beatings undergone at their hands, usually terminating the recital by the solemn asseveration that they chopped his head off and killed him many times. He did but little work; his relations with other patients were unpleasant, and his condition demanded great care on the part of the attendants.

Six months ago, the administration of cocculus indicus was begun by the exhibition of one-fourth drop of the fluid extract three times a day. The amount was gradually increased. About four weeks from the time the prescription was made, at about the regular time for an attack, he was threatened with maniacal excitement; mental confusion existed in a greater degree, and self-control was diminished. This condition was of very brief duration, and terminated without an actual outbreak. Two weeks later a similar condition was observed, but again active excitement was happily averted. His mental action constantly improved, and he began to show interest in other patients, became less irritable, and was able to exercise self-control, even under provocation.

Four months from the time the prescription was made, he suffered from a mild, brief attack of excitement. There was no farther outbreak for nearly five months. The seizure which then occurred was like the preceding one, short and attended by a less complete absence of self control. He is

now taking gtt. 1¼ of fluid extract cocculus indicus three times a day. The aggregate number of convulsions in any month is materially decreased. His attendant notices that the attacks are less severe than formerly, and his mental confusion does not last as long thereafter. He speaks of what is apparent to all—that the patient seems clearer in mind, and that many of his former characteristics are changed. He is now an industrious, pleasant man, and rarely occasions trouble in the hall.

Case II.—J. T., female, age 54, had suffered from epilepsy for thirty-four years, and was subject to daily convulsive seizures. These were invariably followed by demonstrations of violence. She would kick, strike, and bite, and remain in a state of furious excitement. She was untidy in habits, and vulgar in conversation. Under the use of cocculus indicus, convulsions are much less frequent, and very rarely succeeded by excitement. Her habits have improved, and her attendants speak of the milder character of convulsions and the general improvement in her condition.

A third case, which came under observation, was characterized by regularly recurring outbreaks of maniacal excitement with series of convulsive attacks. In the interval, the patient (a male) suffered from *petit mal*, and was accustomed to have from one to three or more modified convulsions in twenty-four hours. The potency of the medicine was shown by the fact, that, after its exhibition for a short time, the attacks entirely ceased, and were held in check for a number of weeks. However, a hard convulsion occurred. The patient is now taking gtt. j. of the fluid extract three times daily. His convulsions have been fewer in number than during the corresponding months of the previous year, and he places great reliance upon the remedy. A profound degree of dementia had previously not been reached. The patient's mind is brighter, and his irritability—a marked feature at first—perceptibly lessened.

In the following case, a marked diminution in the number and severity of convulsions was manifest. A male, had, in the three months immediately preceding the prescription, nineteen convulsions. The following seven months, during which the remedy was used, but thirteen.

In still another case, equally encouraging results as to the number were obtained. In the six months preceding the use of the cocculus indicus, the patient had 139 convulsions—the largest number in any month being 47; the next largest 35; the smallest 8. The six months following, he had but

72—the largest number in any one month being 18; the next largest 16, the smallest 7.

In the following case, the use of the drug was abandoned, owing to the increasing severity of the convulsions, and a change in their character. The patient suffered from light attacks, oftentimes having as high as four or five in the day; but loss of consciousness was only temporary, and convulsive movement not marked. The convulsions were almost completely arrested for a time, but recurred with great severity, and assumed the character of the grave form of epilepsy.

In the case of a boy, age 16, who had been under the bromide treatment, the drug was discontinued after a brief period, the bromide mixture being resumed with gratifying results.

If we accept the view that the essential condition of an epileptic attack is primary vascular spasm, by which sudden localized anæmia of the brain is produced, a satisfactory explanation of the action of cocculus indicus is, that as a vasomotor paralyzer, its influence is to keep the cerebral blood vessels in a state of permanent relaxation, thereby preventing the occurrence of anæmia. Experimental observation has demonstrated that its influence is chiefly exerted upon the cardiac and vascular systems, and the conclusion reached is that patients in good bodily health, whose convulsive seizures are accompanied by maniacal excitement, are most likely to receive benefit.

Codeia in Dysmenorrhœa, Sleeplessness and Malarial Headache.—*Case I.*—I was consulted by the mother of a young lady of 18 years, who, she stated, had suffered with painful menstruation for the past two years. The pain was so great that she neither got rest nor sleep during her periods. After putting her under a general medical treatment, I ordered opium to relieve the pain, but it disagreed with her sensitive stomach. Morphia was no better, though I used it hypodermically. It was then I decided on codeia, in one-fourth of a grain doses, and had the pleasure of seeing my patient perfectly relieved. Her pain disappeared, and a calm sleep was induced. From this happy result I decided to try it on another case, where morphia had played a prominent role and had failed.

Case II.—A lady, 35 years, unmarried, was subject to dysmenorrhœa to such an extent, that she had to keep her bed during four days of her catamenia. I ordered codeia, in one-

fourth of a grain doses, morning and evening, with prompt relief.

Case III.—Married lady, 40 years old, complained of distressing pain during her catamenia. About two years ago she aborted at fourth month, and had suffered to a greater or less extent ever since, at her regular returns. Physical examination showed an ulcerated os and an anteflexed womb. While treating the last two affections, I administered codeia to relieve her pains, with the same unfailing and pleasant result.

Encouraged by these experiences, I prescribed it in a case of mania-a-potu, and in twenty minutes my patient was calmed, and upon the repetition of the dose he fell asleep.

Again, in a case of great nervous exhaustion, in a gentleman who had to take twenty grains of hydrate of chloral, with one drachm of bromide of potassium, in order to obtain an hour's sleep, I ordered one-fourth of a grain of codeia, to be repeated in twenty minutes, and for the first time in two months that gentleman enjoyed four hours of unbroken sleep. I have used it also in the distressing headache that accompanies malarial fever, and alyways with the most flattering results.—F. W. Oliver, M. D., in *College and Clinical Record.—Obstet. Gazette*, Nov., 1881.

Modern Therapeutics.—Dr. J. L. Stewart read a paper during the Seventh Semi-Annual Session of the Third Congressional District Indiana Medical Society, on the above subject, a report of which we find in the *Medical and Surgical Reporter*, Dec. 3, 1881. After criticizing severely the prevailing skepticism on the subject of the efficacy of remedies used in medicine, he strongly advocated the trial of new remedies, before a verdict is pronounced upon their efficiency. He denounced the expectant plan of treatment as founded upon a fraudulent principle, and claimed for the science of therapeutics an advance equal to what has been made in the kindred sciences of physiology and chemistry. If not in the discovery of new remedies, then in the reduction of the old to active principles and the application to different conditions by other methods than those with which we were formerly familiar.

From his own experience Dr. Stewart advanced the following opinions: "*Grindelia robusta* I have found useful in asthma, bronchitis, and like affections; *jaborandi* is a good diuretic, diaphoretic and sialagogue; *yerba santa* proves to be of value in diseases of the mucous membranes; *cascara*

sagrada I esteem of undoubted merit as a tonic to the stomach and bowels. In my hands, in several cases of atonic dyspepsia and constipation, it has given prompt benefit. Experience has convinced me too that not all the preparations in the market can be relied upon, and results have been secured sometimes only after repeated trials of different manufacturers' preparations. *Damiana* as a tonic to the procreative organs, is, in my opinion, of real value. I will cite a case which is at least corroborative:—

"Mr. O. and his wife, a gentleman and lady of intelligence and worth, after four years of unfruitful married life, sought my aid to secure an heir. After tracing the difficulty, as I believed, to the wife, I gave her, three times a day, a tablespoonful of the following:

℞ Fl. ext. damianæ,
Tr. cincho. comp.....$\bar{aa}$ ℥ iv.—Mix.

Within two months, conception occurred, which resulted in the birth of a fine daughter.

I venture to say that the remedies of which I have spoken, and many others at present before us, are not sufficiently employed to establish their character; therefore, in their behalf, I submit as a motto, 'a trial before a verdict.'

Our most reliable agents at the present time have undergone many variations in the scale of favor and disfavor with the profession, to be finally adopted by the great mass of intelligent men. Many others, after long application to particular states, have been found to possess attributes that make them serviceable to conditions different from those to which they were originally applied. *Ergot*, as a single example, long looked upon as a stimulant to contract the gravid uterus, is now, in other important pathological states, a most reliable agent. May we not, by persistent experiment and application, develop new qualities of other agents now in our hands, and thus add something of benefit to the profession in which we labor?"

Dr. Stewart was followed by Dr. R. S. Rutherford, member of the same committee, with a paper on the action of some well known remedies.

Dr. Rutherford's experience leads him to believe that *carbonate of ammonia* does not possess a stimulant action sufficient to justify what has been claimed for it by authorities. Hence, where he once relied upon it and alcohol for stimulation in the crisis of pneumonia, he now resorts to a combination of the carbonate with tincture of nux vomica and tincture of digitalis, for the reason that nux vomica stimulates

the respiratory centres, supports the absorbent powers of the stomach when they flag, and in this way serves to prevent nausea and the accumulation of fluids which otherwise occur, while the digitalis adds strength to the circulatory system. Carbonate of ammonia he uses for two reasons: first, because it possesses, in a small degree, stimulant properties; second, to be able to say, provided counsel should be called, that he is giving carbonate of ammonia.

Prevention of Conception.—In his address, delivered before the last annual meeting of the Medical and Chirurgical Faculty of Maryland, entitled "The Dangers and the Duty of the Hour," Dr. Wm. Goodell, of Philadelphia, considered some important subjects, and discussed them in a very instructive manner. These were the "Faulty System of Female Education;" the "Decay of Home Life;" and the "Unwillingness of Our Women to Become Mothers." We cite some passages from his discussion of the last named subject:

"The third and greatest danger of the hour embraces two sins which defile every class of society—sins which, like the plague of the frogs, creep into our 'houses and bed-chambers, and beds.' I refer to criminal abortion and prevention of conception. They come from the dainty dilletanteism of our women, which shrinks from having its patrician pleasures disturbed by the cares of maternity. They come from fashion, from cowardice, from indolent wealth and shiftless poverty. They come from too high a standard of living, which creates many artificial wants, and demands many expensive luxuries. Of course, immorality has much to do in begetting them; but while regarding all these practices as grossly sinful, I wish to leave out of consideration the question of immorality *per se*. It is not the immoral classes which I wish to reach; not those whose pleasures and profits come from vice, but the wives of our citizens—our fellow countrywomen—on whose morals and good health depends the prosperity of our country, and yet who are unwittingly tainting body and tainting soul.

"I am amazed at the very low standard of morality obtaining in the community on the sexual relations. So low, indeed, has it fallen that I have known clergymen committing these sins in their own families, and physicians of repute teaching their patients how to sin. To these detestable practices do I attribute, in a great measure, the general ill-health of our women. These flagrant sins I hold accountable for much, if not for most, of the wretchedness and misery of this

land. Why is it, asks a layman, that 'in the regions of the United States, otherwise most highly favored, nearly every woman under forty is sickly?' Why is it, I ask, that the waiting rooms of our gynæcologists are crowded with so many querulous and complaining women—women with backaches and headaches and spineaches; women without sexual feeling or too weak to indulge in it? Why do so many women break down either shortly after marriage or very soon after the birth of their first child? It is, I answer, because the great majority of them—false to their vows, false to their moral and physical obligations—are trying either not to have children, or to limit their number. It is, because, by an immutable law of nature, there are no harmless ways by which gestation can be interrupted or conception shunned. It is because the wife, sinning the most and most sinned against, suffers the most.

"Be the mode of prevention what it may, so much engorgement and hyperplasia and disorganization of the uterine structures and annexes* takes place in those women who keep themselves sterile, that their health breaks down and they lose all sexual desire. Then, when they advance in life and there comes that inevitable yearning for offspring, they find, to their dismay, that they cannot conceive. What physician of ripe years is there within sound of my voice, who has not been begged by women, once willfully barren but now longing for children, to undo the mischief caused by such practices?"

A number of statistics are quoted to show the alarming prevalence of divorce cases, especially in the Northern States, and he asks:

"Now, why are there so many ill-sorted marriages? Why those unhappy homes and broken households? What mean these separations between husband and wife? I answer: They mean the violation of one of Nature's immutable laws. Sex is a profound fact which underlies all the relations of life and the fabrics of society, and it cannot be ignored. The sexual instinct is given to mankind for two reasons—to perpetuate the species and to rivet the tie between husband and wife, not only by offspring, but by mutual endearment. The conjugal relation is therefore twofold in its nature; it has a moral as well as a physical expression, but so interwoven that it is impossible to dissociate the one from the other, without doing moral as well as physical harm.

* A large percentage of my ovariotomy cases have been in women who were resorting to preventive measures.

"The causes of domestic infelicity and ill-sorted marriage are, then, to my mind, clear enough. The grossness of the carnal union is redeemed by its purpose—the moral union in which is involved the desire for offspring. Deprive the marriage tie of these qualities, *strip it of the family idea*, and it loses its cohesiveness in intense personalty and self-asserting individualism. Now, when a wife is too sickly to admit the approaches of her husband, or to respond to them; when she receives them in sufference, or absolutely refuses to entertain them; when she soils the marriage bed with the artifices and equipments of the brothel, and quenches all passion by cold-blooded safeguards; when she puts off an ardent husband to stated times and seasons; when a wife, I say, behaves in so unwifelike a way, can it be otherwise than that estrangement or jealousy should take place? Can a home with such environment be a happy one? Would not husbands be tempted to seek elsewhere for those pleasures which are denied them at home? These are nature's reprisals; these, indeed, her never-failing retributions."

His idea of "the duty of the hour" is that there should be a thorough reform in the education of our girls and in the women. These latter should be taught to have children, "first, last and all the time;" the physician's duty is well set forth in the following sentence:

"So, by preaching the gospel of child-bearing, by boldly discountenancing all preventive measures, and by setting his face sternly against criminal abortion, he can indirectly secure the end in view."—*St. Louis Clin. Record*, Oct., 1881.

Listerine.—L. Ch. Boisliniere, M. D., L. L. D., Professor of Obstetrics and Diseases of Women, St. Louis Medical College, and President St. Louis Obstetrical Society, says this of the new antiseptic: "I have given a fair trial to listerine. The more I use it, the better I am pleased with it as an antiseptic and deodorizer. As a dressing for *uterine cancer*, I found that the fetor had been thoroughly corrected, and, after the removal of this morbid growth, a marked benefit could be ascribed to listerine, as it appeared to promote healthy granulations. In offensive leucorrhœa and cervical or vaginal dischages, it removes all disagreeable smells. For vaginal douches and injections after parturition, I now use exclusively listerine. Besides being a reliable antiseptic, its very agreeable odor should give it the preference over all other articles of this class."

Listerine, the New Antiseptic Preparation.—We are glad to call the attention of our readers to a new and valuable contribution to antiseptic surgery. It is called listerine, and the thought suggesting the name is indeed a happy one. It is a combination of the essential constituents of thyme, eucalyptus, baptisia, gaultheria and mentha arvensis. Besides these, each fluid drachm contains two grains of refined and purified benzo-boracic acid. These substances, carefully prepared and combined in a solution of uniform strength, cannot fail to do good service in the treatment of all affections requiring an antiseptic.

The preparation is convenient, safe and agreeable. Locally, it will be found of real value as a dressing for wounds, ulcers and abscesses. It may also be employed as a constituent of solutions for atomization in lung affections and of gargles in throat diseases, while internally it must prove efficacious in all forms of fermentive indigestion.

Surgeons and physicians who have made use of any of the well-known ingredients of listerine can attest their value, and will not fail to appreciate the advantage of having them always at hand in suitable combination.—*Louisville Medical News.*—*Gaillard's Med. Jour.*, Nov., 1881.

The Successive Administration of Calomel and Tinc. of Iron.—When giving calomel, tincture of iron or any strong mineral mixture should not be administered until the effects of the mercurial have passed away, owing to the danger of changing the calomel into corrosive sublimate, which is easily effected by these acid preparations. (This is a very venerable error.—Ed.)—*Gaillard's Med. Journal.*

Nervousness Resulting from Intemperance.—The *American Medical Journal* says: "We have found celerina exceedingly valuable in the treatment of nervous headache, nervous exhaustion, and other associated ailments in women; but the cases to which we now desire to call attention, where the celerina is of inestimable value, are those suffering from nervousness resulting from intemperance. Every practitioner of medicine meets with such cases. Men, and sometimes women, come to us trembling and apparently exhausted, all from the effects of intemperance. Such cases are approaching delirium tremens. Celerina is the most appropriate prescription we can give them. A few doses of bromide of potassium may be given, alternated with the celerina, at first; but after this, for permanent effects, we depend upon the celerina."

Book Notices, &c.

Hand-Book for the Ship's Medicine Chest. Washington, 1881. 8vo. Cloth. Pp. 45.

The Supervising Surgeon-General of the United States Marine Hospital Service, Dr. John B. Hamilton, deserves credit for the issue of this really useful little book. It is designed to give information to the boat officers—where there is no doctor—as to what to do upon the occasion of an injury or the appearance of sickness among the crew. First rate wood cuts illustrate the text description of applying splints, bandages, etc., and technical phraseology has been avoided as much as possible in the description of diseases and the directions for treatment. Every vessel that is in the service should be sure to take a copy of this book; and the officers and men as well should instruct themselves, as far as possible, as to its contents.

System of Oral Surgery. A Treatise on the Diseases and Surgery of the Mouth, Jaws and Associate Parts. By JAMES E. GARRETSON, M. D., D. D. S., Dean Philadelphia Dental College; Surgeon in Charge of the Hospital of Oral Surgery, etc. Illustrated with Numerous Steel Plates and Wood Cuts. Third Edition, Thoroughly Revised, with additions. Philadelphia: J. B. Lippincott & Co. 1881. 8vo. Pp. 916. Cloth. Price, $8. (For sale by West, Johnston & Co., Richmond, Va.)

The author of this book was a dentist for fifteen years, and during the last fifteen years he has been a practitioner of general surgery. We have been greatly interested as well as instructed by the examination of the work. It treats fully of diseases of the mouth, lips, tongue and the other parts related to oral and facial surgery. The first eight chapters are taken up with operative dentistry—a section which is of much practical use to country practitioners of medicine where there are no dentists, and a section which may be found of value to the city physicians when called in consultation by dentists, etc. Nothing follows that is not of interest to general surgeons. Not only is the author careful in the detailed descriptions he gives of the many surgical diseases of the face, throat, mouth, tongue, palate, etc., as well as of the bony structures that enter into their composition, but he gives some nine full pages of steel plates besides 541 well drawn wood cuts, in order to illustrate, first the appearance of the diseases or injury described in the text, and then the several

steps taken in the surgical procedure intended for relief. The completeness of the work may be imagined from the statement that the Index alone, which, printed with nonpariel type and arranged in double columns, covers twenty-six pages. The chief adverse criticism to be passed upon the work is that the author does not refer to authorities sufficiently frequently in regard to borrowed operations (which, however, he does not claim as his own) to enable the reader to refer to the original text or to trace out questions of priority of authorship. There might also be slight re-arrangements of some of the sections in certain chapters. For instance, chapter liii treats of anchylosis of the jaw. As causes of this condition, he gives long sections—all good and complete in themselves—on arthritis, tetanus, trismus nascentium, trismus dentum, etc., but reserves the mechanical treatment for the last section of the chapter, after all the other conditions described in the chapter have their treatments appropriately given. There is, at least, some want of system in the arrangement of this chapter, which does not allow of that ready reference that is desirable by the busy practitioner. But this is a small thing and does not reflect upon the true merits of the work, which we commend most heartily to every practical surgeon and operative dentist.

Therapeutics of Gynecology and Obstetrics, Comprising the Medical, Dietetic and Hygienic Treatment of Diseases of Women. Second Edition, Thoroughly Revised and Greatly Enlarged. Edited by WM. B. ATKINSON, A. M., M. D., Physician to the Department of Obstetrics and Diseases of Women, Howard Hospital, etc. Philadelphia: D. G. Brinton. 1881. 8vo. Pp. 571. Cloth. Price, $4. (For sale by Messrs. West, Johnston & Co., Richmond, Va.)

We had occasion to commend the first edition of this work, which is the third in the series of "Modern Therapeutics," originally projected by the late Dr. George H. Napheys. For a stronger reason do we commend the present edition—it is improved in every respect. It is brought almost strictly "up to the times;" it is more replete with formulæ; errors of the former edition have been corrected. We have examined a number of the prescriptions—enough to sample the book—and we must approve it as a most valuable auxiliary to the busy, intelligent practitioner who, when called in a hurry to a case he has properly diagnosed, simply wants to know what agents have béen authoritatively recommended for the special diseased condition he is expected to treat. It is not a *multum in parvo*, as so many authors of

similar publications wish to claim for their productions. Everything is condensed, it is true, into the smallest intelligent compass, but there is a great deal of it. Hence the book should be on the office table, ready for reference in an emergency relating to a call to attend a gynæcological or obstetric case. There are three indices to the book—one for authors; one for remedies and remedial measures, and one for diseases. There are several sections compiled, in tables, by the editor for which credit, of course, cannot be given in each column—such, for instance, as the "diagnostic points" of *mammary tumors*, page 513.

Clinical Lectures on the Diseases of Old Age. By J. M. CHARCOT, M. D., Professor in the Faculty of Medicine, Paris, etc., etc. Translated by LEIGH H. HUNT, B. Sc., M. D., Laboratory Instructor in Pathology, Medical Department University of the City of New York. With Additional Lectures by ALFRED L. LOOMIS, M. D., Professor of Pathology and Practical Medicine, Medical Department University of the City of New York, etc. New York: Wm. Wood & Co. 1881. 8vo. Pp. 280. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is the sixth of the current annual series of "Wood's Library of Standard Medical Authors," and a most valuable work it is. Twenty-one of the thirty-two chapters or "lectures" are by Prof. Charcot; the remaining lectures are by Prof. Loomis. These two authors are the two specially brilliant lights of the world at this time as authorities on the "Practice of Medicine"—the one in Europe, and America claims the other. Dr. Charcot devotes all but two of his chapters to gout and rheumatism; and in so far, the original work might better be styled one on Gout and Rheumatism in the Aged. But most of the other troubles peculiar to old age are described by Dr. Loomis—thus making the present title of the book correct. Dr. Loomis specially points out, first, the clinical importance of thermometry in old age, in chapters XIX, XX and XXI, which are, in reality, lectures delivered by Prof. Charcot himself in the Salpétriere, 1867. Then come Dr. Loomis' own lectures, two of which are on "senile pneumonia;" one on "senile chronic catarrh of the bronchi;" one on "asthma;" the next relates to "atherorma—fatty heart;" the next is on "cerebral hæmorrhage—apoplexy;" the next is on "cerebral softening," the next is on "chronic gastric catarrh;" the next is on "senile constipation;" and the last chapter is devoted to "senile hypertrophy of the prostate gland." This is a most excellent volume.

Physician's Clinical Record for Hospital or Private Practice; with Memoranda for Examining Patients, Temperature Charts, etc. Philadelphia: D. G. Brinton. 1881. 16mo. (For sale by Messrs. West, Johnston & Co., Richmond.)

The "get-up" of this book is novel, but useful to practitioners, and is what has often been wanted. The active physician every day wishes he had a ready method by which he could keep records of his practice. This is the first approach to furnishing such an aid that we have seen. The delay caused by entering records in the present well arranged blank record-books need not occupy more than a minute or two to make the proper entries to enable the doctor to furnish his clerk, as he returns home at night, with a full report of the cases seen during the day. As aids to memory, the Record "contains a couple of pages of memoranda for examining patients, examination of the internal organs, examination of urine, symptoms of poisoning, ruled blanks of writing paper for forms for clinical records, then a few blank pages for stencil sketches, temperature charts, index, etc. We have had no opportunity to use the book in practice, since we have written this notice as soon as we have examined the book. We propose to begin with our copy with the beginning of the new year. We believe it to be "a good thing."

Manual of Ophthalmic Practice. By HENRY S. SCHELL, M. D., Surgeon to Wills Eye Hospital, and Ophthalmic and Aural Surgeon to the Children's Hospital, etc. With 53 Illustrations. Philadelphia: D. G. Brinton. 1881. 12mo. (For sale by Messrs. West, Johnston & Co., Richmond.)

The author claims for his work no èclat as an originator, but wishes simply "to state briefly the generally accepted principles of ophthalmology, and to describe those methods of treatment upon which he has become accustomed to rely." A few of the illustrations are original; but most of them are borrowed, as Dr. Schell states in effect. But with all of this, we do not regard the work as being properly "up to the times." For instance, some of the later operations for "optic neurotomy," as the operation has been called which is intended to substitute enucleation, etc., have not been described—a very important operation in this day when cosmic as well as curative results are expected. In the same connection, we find an omission as to the selection or the putting in of artificial eyes. In the same way, we might refer to other important omissions. So that, whatever might be our wishes to speak favorably of this book, we are yet

constrained to say, as a journalist looking to the interest of our subscribers, that we think this book can be dispensed with, except by those who seek a complete library of ophthalmic works. The general surgeon who undertakes to operate for eye troubles—as there are many now-a-days—wishes something more complete; and there are several books that are better.

Cyclopædia of the Practice of Medicine. Edited by DR. H. VON ZIEMSSEN, Professor of Clinical Medicine in Munich, etc. Vol. XX. *General Index.* New York. Wm. Wood & Co. 1881. 8vo. Pp. 499. (For sale by Messrs. West, Johnston & Co., Richmond.)

This volume completes the almost invaluable and widely known *Cyclopædia.* We have made many references to it and the text in search for inaccuracies; but there is a remarkable absence of such. Each of the volumes of text, as they have been issued, it is true, contains an index; but such indices as are inserted are so imperfect that it is rather worrying than satisfactory to attempt to "look up" many subjects treated of in the respective volumes. This *General Index* covers this defect. By its aid, ready reference can be made to any of the diseases treated of in any of the preceding nineteen volumes. In fact, even with the excellent treatises of the *Cyclopædia* on hand, it is almost useless to attempt to make ready reference to the subjects of articles *unless* one has this *General Index* to aid him. A fine steel-plate engraving of the illustrious Editor, Dr. Ziemssen, serves as a frontispiece to the book.

PAMPHLETS, REPRINTS, ETC., RECEIVED, for which we have no room for further notice; but most of which can be obtained by enclosing a letter stamp for each pamphlet to the respective authors named.

Pelvic Cellulitis By T. S. GALBRAITH, M. D., Seymour, Ind. (From *Louisville Med. News*, August 13, 1881.) 12mo. Pp. 15.

Chronic Pelvic Abscess. A Contribution to the Differential Diagnosis of Abdominal Tumors. By A. F. ERICH, M. D., Baltimore, Md. Read before the Clinical Society of Maryland. 8vo. Pp. 6.

Case of Exophthalmic Goitre—Recovery Under Electrical Treatment. By A. D. ROCKWELL, M. D., New York city. (From *New York Med. Jour.*, June, 1881.) 8vo. Pp. 5.

(1) *Remarkable Change in the Color of the Hair from Light Blonde to Black in a Patient while under Treatment by Pilo-*

carpin. Report of a Case of Pyelo-Nephritis with Unusually Prolonged Anuria. (2) *Case of Membranous Croup Treated Successfully by Pilocarpin.* By D. W. Prentiss, A. M., M. D., Washington, D. C. 8vo. Pp. 15. (From *Philadelphia Med. Times*, July 2, 1881.) Illustrated by colored plates representing the successive changes in color of the hair.

Observations on the Epidemic of Scarlet Fever at Charleston, S. C., in the Spring of 1881. By Thomas Legare, M. D., Charleston, S. C. 8vo. Pp. 8. (From *Amer. Med. Bi-Weekly*, Sept. 10, 1881.)

Prophylactic and Therapeutic Value of Quinine in Gynecic and Obstetric Practice. By Henry F. Campbell, M. D., Augusta, Ga. 8vo. Pp. 45. (From *Gynæcological Transactions*, 1881.) A paper full of practical suggestions, and the record of a ripe experience—a *very* valuable contribution.

Treatment of Hydrocele and Serous Cysts in General by the Injection of Carbolic Acid. By R. J. Levis, M. D., Philadelphia, Pa. 8vo. Pp. 4. (From Transactions Medical Society State of Pennsylvania, 1881.)

Rudolf Virchaw—an Address Introductory to the Course of Lectures of the Term 1881–2, *College of Physicians and Surgeons, New York.* By A. Jacobi, M. D., New York city. 12mo. Pp. 35. (From *Medical Record*, October 22, 1881.)

Poisonous Properties of Quinine. By William O. Baldwin, Montgomery, Ala. *With remarks by* J. Marion Sims, M. D. 8vo. Pp. 8. (From *Medical Gazette*, October 22, 1881.) A paper which should be carefully read and remembered by every practitioner.

Lateral Lithotomy, with the Successful Removal of a Calculus and Seven Pieces of Necrosed Bone from the Bladder of an Indian Scout Nineteen Months after the Reception of a Gunshot Wound. By J. M. Bannister, A. B., M. D., A. Surg. U. S. A., Fort Reno, Indian Territory. 8vo. Pp. 6. (From *Amer. Jour. Med. Sci.*, October, 1880.)

Proceedings of the Nebraska State Medical Society—9th, 10th, 11th and 12th Annual Sessions. President, Dr. S. D. Mercer, Omaha; Dr. R. R. Livingston, Plattsmouth, Corresponding Secretary. Paper. 8vo. Pp. 297.

Structure and other Characteristics of Colored Blood-Corpuscles. By Louis Elsberg. 8vo. Pp. 49. New York: G. P. Putnam's Sons. 1879. Price, 25 cents. (For sale by Messrs. West, Johnston & Co., Richmond.)

Editorial.

"A Trick of the Trade."—"An illustration of the dangers that may arise to the science of medicine from the encroachments of trade, is seen in the case of the drug or compound known as 'Tonga,' legal proceedings in relation to which are now pending in the courts at Detroit. This drug attracting the attention of Drs. S. Ringer and Wm. Murrell, of London, as a reputed Fiji Island remedy for neuralgia, was investigated by them, and the results of their investigations published for the benefit of science in the London *Lancet*. Drs. Ringer and Murrell's article created more or less interest in the drug in medical and pharmaceutical circles in America, which induced Messrs. Parke, Davis & Co., of Detroit, to dispatch a special agent to the Fijis to secure a supply of the genuine article for use in this country. After going to this trouble, and to the additional expense of placing it in the hands of the profession quite generally throughout the country, and donating generously to the hospitals for careful clinical test and report, a moderate demand sprang up. Before, however, this investment had become a paying one, and at this late date, an English house—Messrs. Allen & Hanbury—step forward, and through their agents, Messrs. Schieffelin & Co., of New York, institute legal proceedings against Messrs. Parke, Davis & Co , for what they claim as their trade-mark. It seems that Messrs. Allen & Hanbury have registered the name 'Tonga' as a trade-mark on the drug tonga, and seek to gain an unlimited monopoly of the manufacture and sale of the article by means of this 'trick of the trade.' This 'trick,' however, is well known in the case of the so-called 'patent medicines,' where the *name of an article* is claimed as its trade-mark. The principal argument against the 'patent medicines' is, not because they are patented, for this is rarely the case, but the danger to science and a scientific profession accruing from the system of unlimited control by which the proprietary medicine business seeks to lock up all knowledge of composition, and by creating an artificial demand through unscientific advertising to compete in such an unfair manner with the medical profession. The case of 'Tonga' looks very much like a trick of the nostrum ring to persecute Messrs. Parke, Davis & Co., because of their well known antipathy and telling strokes against the abuse of the trade-mark law. It is to be hoped that the efforts of this

house to put pharmacy on a scientific basis will be properly appreciated by the profession."

[We had not previously seen nor heard of the above statement, quoted from the *Texas Medical and Surgical Record* for November, 1881, but which we have since seen in the *St. Louis Clinical Record* for October, 1881. If the facts be as stated, which we do not doubt, on account of the eminent authorities from which they emanate, there can be no question as to the proper course to be pursued by the American house as regards the English house. The aiding or abetting of such a suit—whatever may be the pecuniary reward to the American house that brings the suit, even as agents, as the result of a purely technical legal decision—can but be injurious to the firm which brings the charges, as also to the New York house, that lends its influence to such an attack.

We do not profess to be legal experts; but we do know something of human nature and of common sense. If the court which is to decide this case should feel it compulsory to do so adversely to the interests of Messrs. Parke, Davis & Co., we are sure the judge or judges will inwardly feel that the law which may possibly make the firm liable, in so far as its present application is concerned, is wrong in its application to such a case as this. Many things may be "lawful," but all things are not expedient. We regret that so well-known a house as that of the New York agents for the London house, has entered into a suit—*even as agents.* The New York house will find it not to have been expedient to have entered into this matter unless it washes its hands of this matter. This house should, at once, upon their own authority, as agents, take it upon themselves to withdraw all legal proceedings, unless they have consented to be partizans.

The London house must first prove, through their American agents, the superiority of their preparation; and then the American profession—less biased by national opinions than any country in the world, and always seeking to find out the *practical utility* of statements made—will bear with them, but not till then. Let it be understood that American practitioners are thoroughly practical in their ideas in the care of their patients.

The very fact that suit has been brought against Messrs. Parke, Davis & Co., under such circumstances as are stated in the extract above given furnishes, at least, moral evidence that their preparation of "Tonga" has a larger demand, and hence is a more satisfactory preparation of the drug than that prepared by the London house. There are enough of

straightforward, honest practitioners who are more anxious to cure or else to benefit their patients than there are those who are mere sycophants, in order to secure some reward. We believe the profession of this country will oppose such a means of redress, if any illegal injury has possibly been committed. Professional opinion will always be, "Let the fittest survive." The energy and ability of the Detroit house which has done so much to advance the interests of American pharmacy and for American practitioners, should be remembered. We wish we could persuade the New York house "to get from under" the result of such a suit as they, as agents, are bringing.]

State Board of Medical Examiners.—During the recent session of the Medical Society of Virginia, as noted in our November number, a resolution, offered by Dr. O. F. Manson, of Richmond, was adopted to petition the Legislature—now in session—to establish a State Board of Medical Examiners of Virginia. To further aid in securing the establishment of such a Board, Dr. G. Wm. Semple, of Hampton—now President of the Society—presented the following, which was also adopted:

"*Resolved*, That the Corresponding Secretary address a circular letter to every Fellow of the Society and ask a written pledge of each that he will use his utmost influence with the Delegate and Senator from his district in behalf of the resolution just passed."

Thus the Society is pledged to do what it can to secure this most desirable end—a Board of Medical Examiners, whose duty, in short, will be to inquire into the fitness of parties proposing hereafter to enter upon the practise of medicine in Virginia, and to deny this privilege to such as may be found incompetent; and the proposition will commend itself to every intelligent citizen, regardless of political creed.

Unfortunately for the carrying out of Dr. Semple's resolution, the Corresponding Secretary elect declines to accept the position to which he was elected; and the Executive Committee has not yet elected a substitute. We therefore willingly lend our space to aid in promulgating the earnest desire of the Society as expressed during the session at Old Point. Not a day is now to be lost. The Legislature is in session already. It will not meet, after the adjournment of the present session, for two years. Virginia has been too long negligent in protecting her citizens against the intru-

sion and gross practices of ignorant quacks and shrewd charlatans. Protective laws are being, or have been, passed by many States. The incompetent are leaving such States and seeking homes in such States as are behind hand in the establishment of examining medical boards.

A competent committee will be appointed by the President of the Society to work up the proposed measure. Let this committee have the full working support of the profession at large. The interests of our two State medical educational institutions demand such a protection; the honor of the Virginia profession claims such a protection; the health and lives of the citizens of this Commonwealth should have the protection proposed by the establishment of such a Board of Examiners; humanity itself makes an appeal. Let no time be wasted in following out the spirit of the resolution presented by Dr. Semple. He is earnestly at work already, and so are several of the profession of this city. Protective measures are being constantly adopted by the Legislature for the protection of property; but singularly enough, no effort is made by Legislators of this State to put an end to the trifling with human life by ignorant and fool-hardy nostrum venders, travelling quacks and worse than ignorant parties who, unable to do anything else, attempt to practise medicine. What need can there be for the statement of facts or arguments in support of the proposition? Is not nearly every true doctor in the State aware of the fact that, even in his county or city or town, there is near him some one who is presuming upon the credulity of the masses, and the peculiar lack of information regarding medical matters even on the part of those who are otherwise well informed? Such self-assuming so-called doctors often resort to the basest systems of practice to the injury of both morals and health.

Let these things be stopped. Let the regular profession of the State for once step forward in its full strength, and by every honorable influence it can exert, do its full measure of duty. The true physician should be a willing adviser regarding matters pertaining to the health of communities. The health of citizens is preserved by having competent physicians in communities. We can see no better way to secure competent physicians in the future than by securing a competent Board of Medical Examiners. What will the profession now say? *Get actively to work at once.*

The Medical Record Visiting List or Physician's Diary for 1882.—In the notice of "Visiting Lists" for the new year,

in our November number, we accidentally overlooked this one, the title of which is above given. It is not too late, however, to refer to the nature of its contents, and thus commend its merits.

On the first of the printed page is a statemeat of the "metric system," as also a "comparison of Centigrade and Fahrenheit thermometric scales." Almanacs for the latter half of 1881, the whole of 1882, and the first half 1883 occupy the next two pages. Then come a table for estimating the probable duration of pregnancy; a table of proximate equivalents of small weights; doses of drugs used by subcutaneous injection; doses of common and rare drugs; drugs suited for atomization, inhalation, doses, etc.; periods of dentition; disinfectants; examination of the urine. After all these valuable memoranda follows the "visiting list" itself, with blanks for special memoranda, for sixty patients per week, 1882; then a few blank pages for "special memoranda," consultation appointments, obstetric engagements, and practice, vaccination, register of deaths, nurses' addresses, addresses of patients and others; cash account, etc. This "list" is really an excellent one. Although a "list" that has only recently been begun, it is nevertheless one of the best, and it is also popular.

Principles of Practice at Western Lunatic [Va.] Asylum.—Dr. A. M. Fauntleroy. the excellent Superintendent of this Asylum, at Staunton, Va., in his "Biennial Reports" for the fiscal years 1879–80 and 1880–81, makes the following statements as to the general plan of practice with the inmates adopted at his institution:

"The remedial measures here employed for their relief may be classified as medical, hygenic, and moral. And though for convenience of statement, these agencies are spoken of separately, yet it should be remembered that in practice they are never dissociated, and that the largest success and best results are attainable where the three are properly blended.

"*The medical means* embrace the resources of the healing art. As it would be alike impossible and inappropriate on an occasion like the present to give specifically an account of the medical agents used and the indications for their employment, I shall briefly outline the principles of practice pursued. As insanity is *au fond* a physical disorder in which the mental and physical manifestations are but the phenomenal evidences of a diseased brain, medicinal agents are deemed, as experience has shown them to be, of the highest

utility, especially if resorted to at an early period of the disease. As each case embodies its peculiarities and complications, so the medication is individualized in accordance with the varying pathological states of those under treatment. In short, all the means and appliances of medicine at our command are made subservient for the correction of morbid bodily conditions and disturbed functions, whether occurring in the digestive, respiratory, genito-urinary, cutaneous, circulatory, or nervous systems, in the assured expectation that upon the removal of morbid conditions and the general improvement, nutrition, harmony and order will assume their wonted sway throughout the organism, and there will soon follow the *mens sana in corpore sano*, which illustrates the man all lucid and in equilibrium.

"*The hygienic means* are inclusive of pure air, cleanliness of person, a wholesome diet, and bodily exercise. These are severally secured by the thorough ventilation of our buildings, by the regular weekly bathing of the entire person of each inmate of the household, by the dietary furnished, which is varied in kind and most nutritious in quality, and by walking and riding, exercises in which the appetite is increased, digestion invigorated, and the tone of the nervous system improved.

"*The moral means* include the employments, amusements, entertainments, and religious exercises here afforded, and are deemed especially valuable at that stage of the disorder when the activity of the morbid thoughts and feelings has so far subsided that new impressions and healthier feelings may be awakened. In the pursuits of the farm and garden a larger number than ever before have found occupation divertive of their morbid thoughts, while promotive of bodily strength and mental co-ordination. Numbers of the male patients have also found wholesome employment and diversion in the light task of attending to the front grounds, flowers, and walks. Others have been employed in the laundry, bakery, steam-house, and work-shops. Besides the ordinary domestic aid rendered the attendants, the females have been engaged in sewing, spinning, knitting and darning, while those engaged in the sewing room, under the supervision of the seamstress, have made up all the clothing material furnished by the asylum to the patients.

"The amusements and entertainments are as numerous and diversified as we could well make them, namely—magic-lantern exhibitions, the weekly dance, and occasional theatricals. The dance has proved an unfailing source of pleasure and

recreation. These entertainments are shared in alike by male and females.

"To numbers of the patients the billiard-room and ten-pin alley have been favorite resorts, while the females, during the spring and fall months, have engaged almost daily in the game of croquet, with manifest interest and pleasure. Indoor amusements have been afforded by games of chess, cards, back-gammon, checkers, and logomarchy. As sources of amusement, musical instruments are also furnished, such as the piano, violin, banjo, and flute.

"The library, which now numbers over six hundred volumes, of a miscellaneous character, affords interesting reading. To those so far restored in mental tone as to be receptive and discriminative of impressions, light and entertaining reading has proved beneficial as a stimulus, tending to the invigoration and co-ordination of mental action. These resources are regarded as invaluable auxiliaries in the moral treatment.

"*Religious worship* is one of the long established features in the management of this Institution. Services take place every Sabbath afternoon in the chapel. These exercises incite to self-control, while they are elevating to the thoughts and soothing to mental cares and sorrows. The moral remedial influence which these exercises exert is one of inestimable value in reawakening in the mind the sense of personal and relative responsibility."

Wanted.—A good country practice for sale by an old physician, whose health does not allow him to continue in the country. Apply to the editor of this journal.

Walsh's Physician's Handy Ledger.—As much pleased as we have been with former editions, we must concede that the Ledger now presented for 1882 is an improvement. The left-hand pages are all serially numbered. On the first inside cover is pasted an "explanatory page," showing how to use the book; the next page is ruled for an "account of monthly receipts and expenditures for the year;" then follow pages for index of names of patients; after this are 600 ledger pages, with proper captions, for name, residence, kind of service rendered, etc. It is equally well adapted to the wants of city and country practice. It is well bound. Price, $3 for 600 patients, or $5 for 1,200 names—sent by mail, postpaid, on receipt of price by the publisher, Dr. Raalph Walsh, 332 C street, Washington, D. C.

Small-Pox in Richmond.—Rumors are wild as to the estimated number of cases of small-pox in this city. At the time of our last issue, there were not over seventy-five cases of small-pox and varioloid in the city. Now there are not as many as thirty-five—so much for vaccination. Every day, the number of cases is decreasing, until now there is not the slightest ground for fear of its further material spread. The City Board of Health is not only vigilant in regard to this matter, but it is now clothed with sufficient authority to stamp out the disease entirely, and in a week or two after the issue of this December number, we venture the assertion that new cases will be very rare and far between.

Large Practice, etc., for Sale.—A physician, extensively known throughout Greene and adjacent counties in Virginia, desiring to change his business, wishes to sell his practice and property. His practice is a large one, and reasonably profitable. His house is an excellent one, and has all the necessary out-houses and fixtures. Six acres of land are attached—six miles from the Virginia Midland Railroad, on the McAdamized road leading from Gordonsville to Harrisonburg. The village in which the Doctor resides is a pleasant one. This is a fine opportunity, especially as the Doctor will sell very cheap. Bidders can be put in communication with the owner by addressing the editor.

The "Retreat for the Sick" has become an institution of great general importance in the city of Richmond. It is the only hospital in the city to which private patients may be sent. So extensive has its patronage become, that the managers have felt it necessary to purchase another building, so as to accommodate the number of patients. Dr. Hunter McGuire—the eminent surgeon of the South—alone has almost continuously enough patients in the Institution, who do not reside in this city, to fill almost entirely one of the spacious buildings. The Board of Managers—composed of some of the most excellent ladies of the city—continues to keep Mrs. Jenkins as President; and it is chiefly to her untiring and constant generous attention to the comforts of the patients the great success of the "Retreat" is due. Dr. John R. Wheat is the Medical Superintendent, to whom all communications relating to the terms of admission should be addressed.

The plan of organization of the "Retreat" is somewhat peculiar; but under such a Manager as the present President

of the Board of Managers is—Mrs. Jenkins—it works admirably. Each of the religious denominations, or different congregations, of the city contribute so much—$150 a year per bed, we think it is—for the purpose of securing a "bed." For this contribution of $150 (if we are right as to the exact amount), the congregation or church is entitled to send one patient for the year during which the contract lasts—provided the case be not one of any of the contagious or infectious diseases. The City Council itself takes one or two beds per annum. The United States Marine Hospital Service also has a *per capita* contract with the "Retreat" for sick coasting sailors, and has special wards assigned for such patients who may enter this port. The rest of the Institution is open for purely private pay patients, at moderate rates. Each of such patients has the right to select his or her own private medical attendant, to whom the attending doctor must look for his fees. To this extent, the "Retreat" is simply a *sick* boarding house, instead of an ordinary hotel. Room rent, board, fuel, lights, washing, and nurses' attention are furnished such private pay patients; but medicines, the doctor's fee, etc., are *extra*. The advantage of this place for the sick is, in short, that, instead of being at the ordinary boarding house or hotel, where no one seems to have any special concern, at the "Retreat," everybody connected with the Institution contributes his services, or else such services (except those of the selected physician and the compounding of his prescriptions) are contributed. In addition, the "Retreat" has, for such pay-patients who select other practitioners, two physicians—the Medical Superintendent (Dr. Wheat) and the Resident Physician (Dr. Latané), who attend to emergency cases or calls until the selected doctor can be called. These two physicians reside in the building, as also does the annually chosen Resident Student, of the approaching graduating class of the Medical College of Virginia. Their services, *under such circumstances*, are rendered without charge; and we, personally, have often had occasion to recognize the value of their services to patients in our wards when some engagement did not permit of our being on the ground at the exact right moment.

We have written thus much about the "Retreat" for two reasons: (1) In order that other cities without a general hospital may get a good suggestion; and (2) in order that we save doctors of this city and the authorities of the "Retreat" from an immense amount of worthless correspondence regarding patients who have conceived the idea that the "Retreat"

is a purely charitable institution. The "Retreat" is a charitable institution to non-residents of the city, only in so far as such patients pay their *pro rata* of expenses. It is not intended as a money-making institution; but the Managers do not intend for it to be a *debt-making corporation.*

The Transactions of the Medical Society of Virginia for 1881, by a vote of the Publishing Committee, will appear as a part of the January number, 1882, of the *Virginia Medical Monthly.* This method of publication of the *Transactions* has been adopted ever since the establishment of this Journal, in 1874. The agreement may make the January number a little late in appearance; but we may safely promise our readers a full recompense for their patience (in waiting for a necessarily delayed issue), in that several of the papers which have been ordered to appear in the *Transactions* have true intrinsic worth, even if the January number, 1882, contains no other matter than the papers read during the recent session of the Society at Old Point.

Dr. Jacob Michaux has moved from Michaux' Ferry to this city. We are glad to announce that hereafter he will have charge of the Department of "Analyses, Selections," etc. of this Journal. During the session of the American Medical Association in Richmond, in May last, he was one of the seven excellent reporters of the Sections for the "*Daily Edition*" of this Journal; and the reports made by him very materially aided in giving a special interest to the proceedings of that session of the Association—especially to parties who were not able to attend the meetings. We congratulate ourselves, *at least*, in that, we shall, hereafter, have the valuable assistance of such a worthy practitioner, student and writer. He is always on the look-out for *practical*, *useful* suggestions of medical writers.

Dr. Wm. C. Dabney, of Charlottesville, Va., since the departure of Dr. R. H. Lemmon—our recent Translator from French and German exchanges—on an European trip, has consented to renew his engagement with us for the selection of abstracts from Austrian, German and French exchanges. Dr. Dabney is too well known to the American profession as the author of a "Prize Essay" awarded to him by the American Medical Association, as also as the author of numerous valuable and always acceptable *original* articles to the *Amer-*

ican Journal of Medical Sciences (the best medical journal in the world, and of such wide-spread circulation, both in Europe and America, that it would be a work of supererogation for lesser journals to make an extract from its pages), this *Medical Monthly*, and to other journals which we recognize as the equal—we should, in candor, say, *more* than the equal of our own. We feel ourselves to be fortunate and happy to have secured for our readers the services of so eminent a gentleman in the capacity in which he consents to serve our subscribers. We know of no medical gentleman whose assistance we would prefer. Before he undertook a Westward trip around the world, he was the "French and German Translator" for this Journal; and then the translations, with his annotations, made for this Journal, were widely copied in the leading medical journals of the country. Circumstances beyond his control did not permit his contributing to the pages of this Journal while he was away from America.

Compulsory Vaccination Law of Richmond City.—The following is a copy of the ordinance recently passed by a very large majority vote of the Board of Aldermen and Common Council of Richmond over the veto of the Mayor:

"*Be it ordained by the Council of the City of Richmond*, That there shall be as soon as possible after the passage of this ordinance, a vaccination of all persons, residents of this city, who have not been vaccinated within the past twelve months, whether adults or children, except in such cases as any regularly licensed physician shall declare it to be injurious or unnecessary. And any adult failing or refusing to be vaccinated, or to have his or her child, children, or ward vaccinated for fifteen days after the passage of this ordinance, shall be liable to a fine of five dollars."

Before this ordinance can be effective, it requires that it shall be published for five successive days in some of the daily papers of the city. Dr. J. S. Wellford, of the Board of Aldermen, is entitled to the credit of securing this law. Let cities or counties in which the present epidemic of small-pox is just beginning adopt some such ordinance, and thus stamp out this disease at once.

Expert Fee.—An Ohio judge refused to compel the medical witness to express his opinion as to the cause of death unless he received the fee of an expert.—*Med. Journal.*

Obituary Record.

James P. White, M. D.—A very wide circle of medical men will learn with deep regret of the death of James P. White, M. D., of Buffalo, which occurred September 28th.

Dr. White was born in 1810. He was educated at Middlebury Academy. He received his medical education at Fairfield Medical College, and subsequently at Jefferson Medical College, from which place he graduated in 1834. He immediately began practicing in Buffalo. He subsequently studied in Edinburg under Prof. Simpson, and with prominent professors of medicine in Paris and Vienna. Dr. White's professional contemporaries included Drs. Julius F. Minter, Austin Flint, Frank H. Hamilton, and others generally well known. Dr. White was one of the prime movers, with Drs. Hamilton and Flint, in founding the University of Buffalo, with its Chamber of Medicine, in 1846. He was also foremost in founding the Young Men's Christian Association, the Fine Arts Academy, the Edward Street Foundling Hospital, the Provident Insane Asylum, St. John's Episcopal Church, and the State Asylum for the Insane. Of the latter he was president from its completion. He was one of ten citizens who paid for the survey of Buffalo's beautiful park, laid out by Frederick Law Olmstead. Dr. White was the first professor in this country to give clinical lectures on midwifery, and was only successful after much opposition. In the winter of 1870–71 he was invited to deliver a series of lectures before Bellevue Medical College, in place of Professor George Elliott, who was sick. Dr. White delivered the lectures, but with characteristic generosity paid his own expenses and handed the fees to Professor Elliott. The faculty of the College presented him with a beautifully embossed copy of complimentary resolutions, and the students made a similar presentation. Dr. White was a contributor to the *American Journal of Medical Sciences* and the Buffalo *Medical Journal*. At the time of his death, he was a member of the Erie County Medical Society, the New York State Medical Society, the American Gynæcological Society, and the American Medical Association, of which he was the first vice-president. He was one of the vice presidents of the International Medical Congress held in Philadelphia during the centennial year. In spite of his success and many honors, Dr. White was pre-eminently a domestic man. His home and family were always first in his mind. He leaves a wife and a son—James P. White.

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Original Communications.

ART. I.—**The Hypodermic Use of Quinine in Certain Fevers.**
By W. T. SAWYER, A. B., M. D., Ex-President of the Mobile Medical Society, etc., Whistler, Ala.

Permit me to call the attention of the profession to the great value of quinine, hypodermically administered, in certain conditions of the system, often found in our malarial fevers, of high grade and of a severe type.

Quinine, in these fevers, is the *remedy emphatically needed;* yet there often exists such a condition of the system as to render the absorption of quinine through the usual channels of absorption (the stomach and bowels), a matter of great uncertainty or of absolute impossibility.

In the congestive malarial fevers of high grade (the pernicious fevers, of the older writers), which have been very prevalent this fall throughout the South, the mucous membrane of the stomach and bowels is often so greatly congested as to be incapable of absorbing anything by their own vital action. In this state of the system, quinine, either in pill-form or in solution, lies dormant in the stomach, unabsorbed and ineffective, or it is passed slowly away by the peristaltic movements of the stomach and bowels, without absorption and without producing any of the effects of the

drug. Yet it doubtless, *at times*, by the irritation of its presence, increases the peristaltic action of the stomach and bowels, and thus aids in causing movements of the bowels.

Congestion of the brain and lungs, more or less extensive, *always accompanies* this highly-congested condition of the stomach and bowels. The congestion of the brain adds largely to the dangers that threaten life, and the safety of the brain itself is involved by its hyperæmia. Delirium and convulsions are frequently witnessed, especially with children, and paralysis, more or less extensive and more or less enduring, often follows the damage done to the brain.

Quinine is felt to be the medicine most to be relied upon, to counteract these dangerous conditions which occur very frequently in the severe forms of malarial fevers.

When quinine is administered by the mouth in these fevers, many precious hours are lost, while we wait in painful suspense for manifestations of its effects. The largest doses are found of no more value than small doses, because equally unabsorbed and ineffective. Many lives are thus lost while we wait in vain for the exhibition of the powers of this valuable medicine.

I will cite some cases that occurred lately in my practice to illustrate the prompt and valuable effect of quinia, used hypodermically, in the severest forms of malarial fever, *after the complete failure of this remedy, given (in large doses) by the mouth, to do any good.*

Case I.—I was called to see a girl twelve years old, whose mother had been treating her for "fever" for two days. She had given her calomel, rhubarb and aloes in pills, and had followed this prescription on the next morning with the administration of thirty grains of quinine, given in five-grain doses every two hours. The third morning, the mother became alarmed, and sent for me.

None of the effects of quinine had been produced, although it had all been taken more than twelve hours before my arrival. It had been given in the form of freshly-made pills.

When I first saw the child, the congestion of her brain and lungs was very great, and rapidly increased. The pupils of her eyes were drawn to a point, and no longer responded to the stimulus of light. There was complete paralysis of all the voluntary muscles, and hence of movements. She

could not speak, nor understand any question. She could not move a limb, and in whatever position her head or arms or legs were placed, just so they remained. Her breathing was very shallow; her pulse was small and quick, without volume, and unsteady—150 beats to the minute—and difficult to count. Her temperature was 105° F. She had lain stupid or asleep, as her mother had thought, all day. The first thing that alarmed her mother was the thickness of her speech when she attempted to arouse her child, and soon her inability to speak at all came on. Her appearance was collapsed, and her mother and friends thought her dying, and my own fears were aroused.

I drove quickly to the nearest drug-store myself and had quinine dissolved in boiled water with the aid of a little tartaric acid, and returned and injected, hypodermically, five grains. This was followed quickly by stronger action of her feebly-beating heart; the volume and strength of the pulse were increased and its frequency diminished. The shallow breathing became deeper, and her color and appearance improved slightly.

Finding the improvement in her condition not as rapid as I hoped for, I injected a second syringe-full of five grains in less than an hour after the first administration. The effect of this injection was visibly manifested in a few minutes, and improvement commenced at once.

After a little while consciousness returned, the power of speech, with a feeble voice, was regained; voluntary movements were restored, and the agonized mother seemed overjoyed to hear her child ask for water, although in a very weak voice, this being the first audible sentence spoken for twelve hours. The temperature fell rapidly, and quinine was continued by the mother, and the little patient improved slowly but steadily, and made a good recovery.

Case II.—I will cite another case, which, in some points, is even more instructive. A very intelligent boy, eight years old, was taken sick with the prevailing fever. His mother gave him some calomel, rhubarb and aloes in pills, which she said acted gently the next morning. She then gave him 20 grains of quinine, 5 grains every 2 hours, in freshly made pills. He slept quietly all day, except when aroused for a moment to take his pills. He complained only of a slight headache, and refused all nourishment except a little chicken broth. His fever was reported to have been high. During the night his symptoms became worse, and he screamed out as if frightened in his sleep by bad dreams. When awake

(never for more than a minute) he was delirious and did not know his mother. His parents were thrown off their guard by his sleeping so much and so quietly, and did not discover before morning how seriously ill he was.

When I was called early the next morning, the poor mother had begun to know how ill her boy was, and said to me, "Doctor, it will kill me to lose my boy. He is so ill and I did not know it. He is just like poor little Alice, and screams out in his sleep just like she did." (Alice was a fine, handsome girl, 12 years old, a neighbor's child, who had died with the same fever a few days before in the care of an irregular practitioner.) I was greatly shocked at the condition of the boy. He could not be made to take anything, nor to understand anything. Occasionally he screamed out, and then sank back into a stupid sleep. His pulse was weak and small. I could scarcely hear his heart sounds. His breathing was shallow. The pupils of his eyes were contracted, and responded feebly to light; his features were pinched and small. His temperature was *under the normal standard.* His color and expression were that of a dying child. He was in the collapsed stage of the second paroxysm of his fever. The neighbors had gathered to see him die and to try to comfort his mother. I injected five grains of quinine hypodermically. His pulse was soon a little fuller and steadier; his breathing became better, but he still looked to be in a hopeless condition. In less than an hour I injected five grains more deeply in the muscular tissues of the thigh, and left him to see other patients. I returned in half an hour, still being myself in much anxiety, and walked into the room, and when I approached the bed the little fellow recognized me with a beautiful smile, and said, "How d'ye, Doctor," after sixteen hours of unconscious delirium. I found the parents and friends of the child talking in astonishment over the influence of the medicine injected hypodermically, which seemed to them almost miraculous. In a right long practice I had never seen the good effects of medicine more strikingly shown. A number of the female friends of the irregular physician mentioned, made earnest inquiries of the parents to tell them what was the medicine injected, having never known of anything but morphine to be hypodermically injected. The parents could not inform them, but told them they thought it could not be morphine, as the child was stupid before the medicine was injected, and became aroused and sensible after it.

Quinine in a liquid form was administered for a few days to the boy, who made a slow but safe recovery. *Four days*

after the quinine pills had been administered, the little patient passed them all, with one calomel and rhubarb pill, undissolved, in a natural action from the bowels.

This shows the *important fact* that quinine administered in these fevers, in *fresh pill* form even, may, and often does, remain undissolved and unabsorbed *four days*, more or less, in the stomach and bowels without any effect, while we look anxiously for its well known action.

With the risk of being wearisome, and of trespassing too much upon the pages of your valuable journal, I will venture to give another case, which proved fatal, but which illustrates the failure of quinine to produce any visible effects when *given in solution by the stomach and bowels* in these severe forms of congestive malarial fevers. Clinical experience and observation have convinced me that *quinine in solution* is equally unabsorbed and inefficacious as in pill form in these severe congestive fevers.

The history of this case illustrates this fact:

A fine, healthy boy, five years old, was taken with high fever, following a chill. The mother gave him calomel and rhubarb, and during the next morning, she also administered a dose of castor oil. The medicine is said to have acted well, and a good deal of bile was passed. During the second night, about midnight, his mother thought his fever sufficiently "cooled," and gave him a large dose of quinine (*about* 10 *grains* in liquid preparation), and next morning another similar dose. About 10 o'clock in the morning, corresponding to the hour of his first chill two days before, the child became cold, and complained of being chilly. In an hour he had hard convulsions, and seemed dying. The mother gave him assafœtida and also some chloral hydrate, prepared for an older boy, after putting him in a hot bath. The convulsions had continued with less violence for nearly two hours, when I saw him. There was much congestion of the brain and of his lungs. The pupils of his eyes did not respond to the stimulus of light, and his breathing was not deep. His pulse was frequent, but strong, and the volume good. He still had slight convulsive movements. His temperature was 104° F. Cold was applied to the head, and bromide of potassium and chloral hydrate administered by the bowels, as the surest mode of entrance to the system, the chloral being especially readily absorbed from the rectum.

Minute doses of aconite were ordered, and $\frac{1}{4}$th grain doses of calomel every hour were dropped upon the tongue.

I think that quinine, hypodermically administered, at that time, would have saved this child also. But the violent temper of his mother, who objected, and the *unmeasured*, and to me *unknown medicines*, he had taken, with, perhaps, *some moral cowardice* on my part—lest if he did not recover, his death would be laid to the hypodermic medicine by his ignorant mother—prevented me from using quinine hypodermically. I hoped he might survive this paroxysm, and be restored by the usual use of medicines by the stomach. I left him to see other patients. His bowels were freely moved after this, and the assafœtida was recognized by the nurses, from its odor, and the quinine *perhaps from the color of the liquorice* (glycyrrhiza), with which its taste was disguised. I think his medicines were mostly passed unabsorbed.

After an absence of five hours, I was called in haste, to find him dying.

I might add, from my notes, quite a number of cases that have occurred in my practice this last fall, in addition to those already given, in which quinine administered by the stomach to persons, *of all ages*, suffering with attacks of the malarial fevers, has passed through their bowels unchanged, as well as various purgative pills, and pills and capsules of quinine, given twenty-four and thirty-six hours after they were taken into the stomach. This result has generally occurred without any special looseness of the bowels.

In hæmorrhagic malarial fever—sometimes called yellow chills or yellow disease—I have used quinine hypodermically, with the *greatest benefit and success*, when the stomach could not retain anything for days, neither medicines, nor nourishment, from the constant and exhausting nausea, which is a characteristic of the severe forms of this very dangerous disease.

Quinine is *essential in this disease*, yet oftentimes it cannot be taken, nor absorbed through the stomach on account of the unremitting nausea. I am sure I have seen cases recover through the hypodermic use of this drug, who would have died without it.

In yellow fever, when patients are not seen before vomiting sets in, or in those cases in which this occurs very early, I have seen benefit follow the hypodermic use of quinine.

The use of quinine hypodermically would be, perhaps, much more general than it is, but for the fear of painful abscesses forming at the point of injection. This troublesome sequence can, I think, be always avoided, (firstly) by using *boiled* water and a little *tartaric* acid, as the menstruum for the solution of the quinine; (secondly) by pressing the fluid slowly into the tissues; (thirdly) by gently rubbing away the first portion of the injected fluid before more is passed into the tissues.

A too rapid hypodermic injection tears the tissues so much as to lead to inflammatory processes, and to the formation of abscesses.

The use of the mineral acids for solvent purposes, such as sulphuric, hydrochloric, nitric acids, leads to the formation of abscesses by their irritating, caustic and destructive effects upon the tissues injected.

Lactic acid has been recommended as a solvent of quinia salts; but it also produces effects nearly as bad as the mineral acids.

Tartaric acid exists as a natural acid in grapes and other fruits, and in wines, and seems to be a healthy ingredient of the fluids of the body. In my hands abscesses have never followed its use, while the stronger acids were quickly abandoned.

I hope this hastily written paper may draw the attention of the readers of the *Virginia Medical Monthly* to the value and safety of the hypodermic use of quinine in those conditions of disease in which the drug could not be administered in any other way, with the hope of its producing some good results.

For Intermittent Facials, Neuralgia and Cephalalgia.—

℞ Dextro-quiniæ.....grs. xxx
Ammonii chloridi.....grs. xx
M. ft. chart No. vj.

Sig.—One powder three times daily "promptly alleviates the suffering." According to Dr. W. Matthews in the *St. Louis Medical and Surgical Journal*, 1881.

Clinical Reports.

Puerperal Septicæmia with Diphtheritic Membrane Covering entire Vaginal Canal and Os Uteri. By L. ASHTON, M. D., Falmouth, Va.

Dec. 19*th*, 1881. I was called hastily twelve miles in the country to attend Mrs. Abbie H., age 24, of good constitution, in labor with her first child. On my arrival, the midwife stated she had been in labor for 36 hours, and that the waters had broken some twelve hours before. Upon examination, I found the head engaged in the superior strait, and pains frequent, but feeble. As there was much exhaustion, I gave her five grains quinia sulphate with a tablespoonful of sherry, which had the effect of increasing the pains and terminating labor in two hours by the birth of a healthy child weighing ten pounds. There was some laceration of the perineum, which I at once closed by sutures. After my patient was put to bed, I ordered ten grains quinia in divided doses three times a day.

Dec. 23*d*. Four days after the birth of the child, I was called at night to visit the patient—the messenger saying that she had had a severe chill in the evening, followed by high fever. I found her suffering from excruciating pain in the abdomen, with pulse 140, temperature $104\frac{3}{4}$; great tympanites and some sore throat; lochia fœtid and scant. The whole genital tract was hot and burning. I at once diagnosed a case of puerperal septicæmia, and as I had attended her sister the week previous in a malignant case of diphtheria, in the same house (the disease there prevailing as an epidemic in the neighborhood), I suspected diphtheria as the cause. Upon examination with a speculum, I found the os and vagina covered with a thick tenacious membrane, resembling in appearance the inside of a buckskin glove. I prescribed 20 grains salicylate of sodium each hour, for three hours, then 5 grains quinine every fourth hour; gave hypodermically $\frac{1}{4}$th grain morphia sulphate with $\frac{1}{200}$th grain atropia sulphate, and hot applications to the abdomen. The whole genital tract was to be washed out every 8 hours with a solution of carbolic acid (1 to 50). These injections I used myself, as I find few nurses sufficiently reliable to trust this important matter to.

Dec. 24*th*. Patient slept some two hours or more this morning. Pulse 115; temperature 103; tongue dry and

hard; throat covered with diphtheritic membrane; tympanites with great tenderness; respiration hurried; countenance anxious and expressive of much suffering. Ordered an enema of castor oil, with oil turpentine, which acted well, expelling a large amount of flatus, which gave great relief. Continued the quinine every fourth hour, with 20 drops tinct. ferri chloridi in orange water added; hypodermic of morphia sulphate at bed-time; beef tea whenever she would take it. As there was distressing thirst, allowed ice *ad libitum*.

Dec. 25*th.* Symptoms much the same; continued treatment.

Dec. 26*th.* Patient suffering great nausea, the stomach being unable to retain even a teaspoonful of milk with ice. Temperature, 104; pulse, 130; respiration hurried, distressed countenance, tenderness of abdomen such as to prevent the weight of the bed clothing; has slept none during the night, though morphia was administered twice as before. Ordered an enema of beef tea with 15 grains quinine and three tablespoonfuls of whiskey every three hours, which was retained. Applied turpentine stupes to the abdomen; substituted Condy's fluid, largely diluted, for the carbolic vaginal wash, which brought away a large amount of false membrane. This washing out of the uterus I continued three times in twenty-four hours until convalescence set in, using "Hall's health syringe."

Dec. 27*th.* Nausea still continues, though I exhausted everything at my command to relieve it. Temperature this morning, 102, though before 6 P. M. it had again risen to 103½; pulse, 115, thready and small; great anguish of countenance. Continued the injections of beef tea, quinine and whiskey as before, also turpentine to abdomen. Sponged the whole body with cool water, which afforded much relief.

Dec. 28*th.* Temperature, 101; pulse, 100 and very weak; exhaustion great, some delirium, abdomen not so much distended, still complains of pain; owing to diarrhœa, was forced to discontinue the enemas. Stomach took and retained two teaspoonfuls of brandy and ice. Gave one grain bisulp. quinine hypodermically every three hours; brandy and ice to be continued every hour; for the relief of pain and diarrhœa, ordered 60 drops tinct. opii in one ounce of starch by enema. I should state here that the discharge from bowels were filled with shreds of false membrane. Again used sponge bath.

Dec. 29*th.* Temperature, 100; pulse, 100; tympanites subsiding, respiration improving; has taken the brandy and ice,

also beef tea and a little milk; countenance more placid; still suffering pain, but slept under the opium. Continued the hypodermic injections of bisulph. quinine, keeping the stomach only for food and stimulants, both of which were administered pretty liberally.

Dec. 30th. Temperature and pulse same as day before. Some nausea this morning and return of pain; substituted whiskey and egg for the brandy, and gave lime water and milk. Treatment same as yesterday.

Dec. 31st. Temperature, 100; pulse, 90. Has had no pain for the last 12 hours; has asked for and taken a little squirrel broth. Prescribed two grains quinine three times a day in elixir, with 15 drops tinct. iron. Takes tablespoonful of whiskey and egg every three hours.

From this day she has had a slow convalescence, with few interruptions, till to-day, January 10th, 1882, I discharged the case cured.

I would state that whenever the quinine was withheld for six or eight hours, the temperature notably increased, with an aggravation of all the symptoms. I used opium largely to control pain. I gave laxatives and diuretics as were indicated.

At some future day I will give the report of two other cases of puerperal fever occurring in my practice in the last few months, one of which proved fatal.

Original Translations.

From the French and German. By WILLIAM C. DABNEY, M. D., Charlottesville, Va.

Subcutaneous Injections of "Ammonio-Narceine Peptones" in the Treatment of Syphilis.—A paper on this subject was read by M. Martineau at the meeting of the Societé Medicale des Hopitaux on the 8th of July last, an abstract of which is published in *Le Practicein* for November 7th, 1881.

In the present paper M. Martineau gives a report of the results he has obtained from this mode of treatment during the past few months. From the 12th of April to the 8th of July, he had employed this treatment in 172 cases and had made 3,830 subcutaneous injections. The dose of the "sublimate" had been in some cases as much as 10 milligrammes a day. The author arrives at the following conclusions:

1. The bichloride of mercury, associated with deep peptones according to the formula of Delpech, and administered by hypodermic injections, produces no local trouble, such as boils or sloughs, if the injection is made in the subcutaneous cellular tissue; the swellings sometimes observed, are the result of making the injections in the skin itself. They rapidly disappear, however. When properly made the injections are not painful.

2. Even in the dose of 10 milligrammes a day, neither salivation nor stomatitis were observed, unless a gingivitis, caused by tartar on the teeth, the abuse of tobacco, etc., were present.

3. The employment of the subcutaneous injections of mercuric peptones does not permit the administration to the patients by the mouth of other remedies intended to combat the scapula or arthritis on which syphilis is so often grafted.

4. This method gives more prompt and more powerful results than the ordinary procedure with an equal dose of mercury. Secondary lesions, even "abnormal" ones, are promptly relieved, and tertiary troubles are also allayed.

5. The absorption of the sublimate when administered hypodermically, is incontestably proven clinically, and can be verified also chemically by analysis of the urine.

M. Martineau reports as very interesting and instructive, the case of a patient who had been suffering with very severe abnormal syphilitic manifestations for two years. This patient, who was not able to take the smallest dose of mercury without having stomatitis produced, had ulcerating syphilides of the head which were very deep and very painful, and he also had a fever which was so intense as to necessitate his keeping his room. Injections of "ammonio-narceine peptones" were commenced on the 30th of August, the dose being gradually increased from 2 to 3, 4 and then 5 millegrammes. After the twenty-fourth injection he had no pain, no ulceration and no fever; the stomatitis had not reappeared, and at the time of writing the patient was almost entirely well.

M. Martineau stated that he had also administered the "narceine peptones" by the mouth. He gave one or two teaspoonfuls a day of a solution composed of one part of narceine peptones, fifty parts of glycerine, and two hundred parts of distilled water. The effect was less promptly produced than when the injections were used, and indeed it did not act more rapidly than other preparations; but it is less apt to cause nausea and other gastro-intestinal disturbances than Von Sneiden's solution.

The Relation between Diabetes and Malaria.—At a recent meeting of the Academie de Medicine, of Paris, M. Verneuil read a paper on this subject. As is well known, M. Verneuil has given much attention to such subjects during the past years, and translations of his papers have appeared from time to time in the *Virginia Medical Monthly*.

After referring to the part that but little has been written on the subject in question, and giving due credit to M. Burdel de Vierzou, who first drew attention to the influence of malaria in the development of glycosuria, refers to six cases of his own in which there was, he thought, a very evident connection between the two diseases.

M. Burdel stated that glycosuria appeared in 27 or 28 per cent. of persons suffering from malarial fever or chronic malarial poisoning, and he expressed the opinion that the glycosuria commences as an occasional ailment—sugar being sometimes present in the urine, and sometimes absent, and gradually becomes permanent.

M. Verneuil agrees with M. Burdel on this latter point, and as a result of his investigations, he arrives at the following conclusions:—

1. Malaria frequently gives rise to glycosuria.

2. The latter affection may appear in one or two forms; the one cotemporaneous with the fibrile access and transient in duration; the other more or less tardy in making its appearance, independent of the febrile paroxysms, and in all cases permanent.

The second form is, in all probability, the direct result of the first, but the time at which the transition from the first to the second occurs is entirely unknown.

3. Glycosuria appears to attack by preference those persons suffering from malarial poisoning, who are of vigorous constitution, but who are suffering with joint affections [gout?].

4. Malarial glycosuria appears to be one of the benign forms of diabetes.

5. Intercurrent affections coming on in the course of malarial diabetes, may take certain features of the malaria, or of the diabetes, or of both diseases at the same time.

Traumatic lesions may readily cause the development of either one of the two affections, but as a general rule, malarial manifestations are the most common.

[M. Verneuil's views on the influence of diabetes on the result of surgical operations were published in the *Virginia Medical Monthly* some years ago.—W. C. D.]

The Treatment of Whooping Cough.—By R. Elben (*Rundschon*, November, 1881). The writer of this paper states that he has tried very many different modes of treatment for this harassing disease. He mentions among the modes of treatment which he has tried, inhalations of a solution of tannic acid, quinine internally, and (with better results) the insufflation of quinine with bicarbonate of soda, according to the method of Letzerich. His principal resort, however, has been to belladonna, chloral hydrate and morphia. In those cases where, in consequence of the violence of the cough, sleep is disturbed and vomiting is troublesome, the writer states that he has found good results from morphia, but he thinks it should be administered boldly; and hence should only be used in those cases where the attendants are intelligent enough to observe the approach of toxic symptoms. Bromide of potassium occasionally mitigated the attacks, but was often of no benefit. The remedy which Elben has recently used, however, and which he speaks of in the highest terms of commendation, is oxalate of cerium. He had only employed it in three cases, in two of which, however, the affection was very severe, and was attended by obstinate vomiting. The oxalate of cerium gave such good results that no other treatment was resorted to. In one case he suspended the cerium and gave the patient morphia, and also suspended all treatment for a time. Under both the latter circumstances there was a marked change for the worse, which was immediately checked when the cerium was again resorted to. He thinks the action is probably a specific one. The dose which he recommends for children from one to seven years old is from $1\frac{1}{2}$ to 9 grains of oxalate of cerium in powder every morning before breakfast, and a similar dose at night before going to bed.

[This subject is not entirely new. Cerium has on several occasions been proposed as a remedy for nervous cough, and a few years ago one of the New York Medical Societies appointed a committee to examine into the subject. Their report was not favorable to cerium as a cough medicine, and since that time but little has been said on the subject. The view that the agent is a specific for whooping cough is almost certainly a mistake. Probably it would serve a good purpose to quiet nausea. Many patients can take morphia combined with cerium whose stomachs will not tolerate the former drug alone.]

Nerve-Stretching in Neuralgia.—At the meeting of the Société de Chirurgie on November 9th last, M. Polaillon re-

ported a case of tic douloureux which was cured by stretching the inferior dental nerve. We take the following abstract of M. P.'s report from *Le Practicein* of November 28th:

"The patient was a man sixty-one years old who had suffered every night for three years, and who could get no relief. After having cut through the skin and soft parts, M. P. removed, with the trephine, a little button of bone. The inferior dental nerve then came into view, and was caught up and raised about a centimetre and a half above the bone. The patient was greatly relieved at once; but four days afterwards, there was a fresh access of pain which, however, was much less in the parts supplied by the inferior dental branch of the fifth pair. During the following day the pain progressively diminished and anæsthetics, which had been powerless prior to the operation, now gave relief. Fifteen days after the operation, all pain had disappeared, and has not yet returned. The stretching of the inferior dental relieved the pain in all the other branches of the fifth pair as well as itself."

Treatment of Prolapse of the Uterus by Narrowing of the Vagina.—At a meeting of the same society, on Nov. 16th, M. Guéniot read a paper for M. Eustache, of Lille, with the above heading.

M. Eustache reported five cases on which he had operated. In two of these cases he had operated according to the method of Le Foot, and the operations were failures. In the other three cases he pared the mucous membrane off a space four centimetres in length—a much larger surface than Le Foot advises. He also used cat gut sutures, because they are so much more readily removed than silver. All three of these cases were successful, and M. Eustache attributes the result to the modification of Le Foot's method, to which he resorted.

M. Despres stated in the discussion which followed the reading of the paper that all the operations for the relief of prolapse of the uterus were absolutely useless, because the prolapse was due to the absence of the normal resistance of the perineum, and it was necessary to repair this structure in order to get relief.

M. Le Foot said that he had found a denuded surface of two centimetres sufficient in his cases. He did not think the perineum had any part in preventing a prolapse. The narrowing of the vaginal walls had given satisfactory results in his hands. He cautioned his hearers also against paring the vagina deeply. M. Tillaux had, in one case, unintentionally moved the whole thickness of the vagina, and his patient died of peritonitis.

M. Lucas, Championier, and Trelat did not think the perineum exerted any influence in holding the womb in position.

M. Guéniot said that a woman might have a torn perineum without prolapsus, but that prolapse was formed by such an injury.

Analyses, Selections, etc.

The Treatment of the Late President's Wound.—We find the following remarks in the *Medical Gazette* for Jan. 21, 1882, which we believe to be a correct representation and view of the facts, and hence we give them in full:

Schuller, after giving a complete history of the late President's case, concludes as follows:

In the *Wien Medicin Wochen.* No. 47, 1881, Prof. Max

"Taking into consideration all the circumstances connected with this gun-shot wound, it is evident that the determination of the direction taken by the missile, by probing, would have been extremly difficult, and if it had been possible would have been accompanied by great danger to the patient. It is probable that the track of the bullet through the muscular tissue it traversed was so irregular, and the tissue itself so torn by the projectile fired at such close range, that an immediate attempt to follow in the direction of the ball would have been futile. Among the symptoms which presented themselves immediately after the receipt of the injury, only the pain and disturbance of sensibility in the lower extremities gave an indication of the true course of the bullet.

"This disturbance of sensibility in *both* lower extremities would scarcely have occurred without a lesion of the cord (either by extravasation and pressure upon the dura, or a direct injury of a light grade of the substance of the cord) above the points of origin of the nerves distributed to these members. If, however, the supposition had been entertained that the vertebral column was wounded, the question of indications for treatment would not have been different from that instituted by the attending surgeons.

"To prevent sepsis in gunshot injuries and to bring to a successful issue such a wound as that received by President Garfield is one of the most difficult achievements, and cannot always be accomplished even with the most careful and assiduous application of antiseptic surgery."

Dr. Schuller has fallen into the error of supposing that

nervous sensations or pains can always be traced to some specific lesion of the nervous system; while nothing is better established than that such sensations are often wholly unreliable as a means of exact diagnosis. The literature of nerve injuries is replete with examples which illustrate the truth of this statement. Lesions of the *ganglionic* system, where there is no lesion of the nerves of common sensation or of motion, often cause reflex pains and paralysis in one or both extremities, or in other parts of the body. Ordinary colic, or distension of the stomach by gas may cause pains in various parts of the body; and if the disturbance or lesion of the ganglionic nerve is persistent, as it would be in case of its being traversed by a ball, the reflex pains would necessarily be persistent. There was no *positive* evidence, therefore, furnished by the pains, first in the right foot and then in the left, that they were not caused by such an injury, and especially since these pains only lasted a short time.

It is true, also, as shown by Mitchell, that an injury of a spinal nerve is not always expressed by a pain in that part of the body which corresponds to its distribution. The author relates the case of a man who, being wounded by a ball in his right thigh, felt pain only in the left thigh; and in another case cited by him an injury of the right sciatic nerve caused paralysis of the right arm and only paresis of of the right thigh. But in a matter so well known to medical men, it is unnecessary to cite examples. We do not deny that the rule is otherwise, so far as lesions of the nerves of common sensation are concerned, but the exceptions are so frequent as, in the total absence of any other evidence but a temporary, symmetrical pain in the lower extremities, to justify the interferences made by the surgeons in the case of the late President. It is certain, also, that even in case it were to have been necessarily inferred from the pains in the feet that the spine had been injured, it could not indicate whether it was simply a concussion, the ball having then glanced off in some other direction, or an actual penetration of the spine, the ball remaining embedded in that structure, or a complete perforation, the ball being lodged at some point remote from the spine. It would determine, in short, nothing of any practical importance, and as Dr. Schuller justly says, it would not have changed the indications of treatment, or to use his exact language, "the treatment would not have been different from that instituted by the attendants."

While we were writing, the *British Medical Journal* for December 27, 1881, came to hand, and we find in it a very

full expression of opinion on this subject by its editor. He thinks that during the first 24 or 4 8 hours after the receipt of the injury, some farther exploration might properly have been made; but it is evident from his statements that he was not well informed as to the extent of the explorations which were actually made by Drs. Wales, Bliss, and Woodward. He does not doubt that the splenic artery was injured, nor does he think that any exploration, however thoroughly made, could have averted the fatal result; and in this conclusion he declares himself in accord with the opinions of Drs. Sims, Ashurst, and Hodgkin, as expressed in their several papers published in the December number of the *North American Review*.

"When, therefore," says the editor of the aforementioned journal, "the injury came in the form of a severe gunshot fracture of two ribs, and of perforation of the vertebral column, not to mention the other accompanying lesions, the chances of escape became so infinitesimal that the wound might strictly be regarded as a mortal one. No particular mode of surgical treatment, no amount of skilled nursing and attention, could hold out a reasonable hope of being able to avert the fatal result. Professional skill, devotion, and extreme watchfulness might prolong life, as we believe they did to its utmost tether in the President's case; but, either in the one form of blood-poisoning, or, if not in that, in the form of exhaustion, or in some other manifestation of the kind, the fatal end was sure to follow. We have expressed regret that the early exploration of the wound was not more complete, in the belief that the diagnosis and prognosis would have been rendered clearer had it been, and that some of the passing complications which ensued might probably have been evaded; but it never occurred to us, when once the true nature and extent of the lesions were fully exposed at the examination after death, that the exploration could have exerted such an influence as to stop the final result."

As the editor of the *British Medical Journal* alludes to the matter of *placing the patient in the same position in which he was when the ball was received before proceeding to probe*, but naively remarks that, owing to the shock, this may not have been possible in the President's case, we take the liberty of suggesting to him that this rule, given in the writings of certain surgical authors, was never intended to apply to anything but muscular wounds, and especially wounds of the extremities, in which a restoration of posture does occasionally cause a restoration of the channel made by the ball, and

which would otherwise be obliterated by the action of the muscles as sliding valves; but even in these cases it is seldom, as all army surgeons know, of any value. No surgeon of experience, of reputation, or who has ever given the subject a moment of thought, has ever advised this to be done in the case of a gunshot wound of the belly or of any of the large cavities; for the reason that it could be of no possible use—the channel through the viscera could not thus be restored. This is especially true in case the ball has entered the abdomen. The intestines, especially after being wounded, are in constant motion; and to think of restoring the channel of the ball by this method is simply puerile, and its mention is unworthy a medical student. If the ball had passed through the liver, whose position is changed by every degree of inflection of the body, the difficulties would be the same. There are other reasons, also, why surgeons have never taught that, in case of an abdominal wound such as that suffered by the President, the patient should be put again upon his feet; namely, first, that if the intestines have been perforated, the effect of this would be to hasten and make certain the escape of their contents into the peritoneal cavity, and thus vastly increase the danger of a fatal result. Second, there may be, for ought we can know, a concealed hæmorrhage, which would be necessarily increased by such a change of position; and, third, that the patient is almost invariably suffering under such extreme prostration from the shock, that to maintain him in an erect position until the probing was completed and the ball extracted, would be simply impossible or promptly fatal.

Surgeons have, therefore, always enjoined *perfect rest in the horizontal posture* from the first moment after the accident; and they are not likely hereafter to teach any other doctrine, or to disturb the viscera with probes, after belly wounds, in any position of the body. No one has yet followed these absurd and dangerous suggestions, or if he has, he has taken good care to conceal his results.

The *London Lancet* for Sept. 24, 1881, concludes a somewhat lengthy review of the President's case, as follows:—"The fact that life had been so long preserved is the best evidence in favor of the surgeons."

We wish to add to these rather desultory remarks a word or two more in reference to the question of the practicability of introducing probes or drainage tubes into the track of the wound.

It is a matter of fact capable of the easiest demonstration

that the course of the ball was not straight. These are the known facts, denied by no one. The ball struck the 11th rib about three inches from its anterior extremity; then the 12th rib near its posterior extremity; the fibro-cartilage between the last dorsal and first lumbar vertebra, near the root of the transverse process; from which point it passed forward and downward, emerging from the point of the first lumbar vertebra only a little to the left of the centre; and here was again deflected to the left, until it became lodged under and below the pancreas, two or three inches to the left of the spine. In this course it had suffered, as any one may demonstrate on the skeleton, four marked deflections; first, on the 11th rib; second, on the 12th rib; third, as it entered the spine; fourth, as it emerged from the spine. Such being the actual fact, to have carried a probe or a drainage tube through its channel would have been impossible. But admitting that the channel had been straight, every surgeon knows that such channels in the cavity of the belly do not remain open for the convenience of the surgeon, and as we have already stated, they cannot be re established. It is, to our mind, evidence of a lack of knowledge and of experience in surgery for any man to say that he could carry a probe safely among vital tissues to the depth of seven or ten inches; and (as in the President's case it must have been carried), behind the kidney, between the liver and colon, or behind both to the spine, and through the spine to the seat of the ball. Mr. Garfield had a very broad chest, and it is quite probable that the distance of the ball as found, in a straight line, was 12 inches. Whoever talks of cutting or of probing for the ball, or of satisfactorily draining it through drainage tubes seems to us to talk nonsense; and we are not surprised, therefore, that the almost unanimous expression of the medical profession at home and abroad is, that the surgeons pursued the only course which presented any chance of saving or of prolonging the life of the patient.

Autopsy of President Garfield.—It seems that some foolish rumors have got afloat, perhaps at the suggestion of a jealous doctor or two who did not happen to be called in consultation, which put the eminent physicians and surgeons in charge of his case in an improper light. We, therefore, take great pleasure in giving publication to the following paper, which we find as a telegram in one of our daily papers. If we mistake not, it was clipped from the *Globe Democrat*, of St. Louis, Mo., of a recent date:

Acting Assistant Surgeon D. S. Lamb, of the U. S. Army, now in Washington, D. C., who performed the autopsy upon the body of President Garfield, furnishes the following for publication:

"There prevails, to some extent, an impression that the examination of the body of the late President Garfield was a careless and haphazard one, without order or method, and that the bullet was only found by accident. This impression is entirely incorrect. The order of examination was pre arranged in a consultation held for the purpose, and was carried out as far as the developments of the autopsy permitted. It was necessary to ascertain the extent and character of the injury, and if possible to obtain the missile. All things considered, the only way in which these objects could be accomplished was by first opening the abdominal cavity. Much has been said about the bullet being found in a basin, and this statement has been industriously circulated by prejudiced parties. The facts are as follows: The search for the bullet was prosecuted carefully, systematically and successfully, and the latter is no small matter in view of the fact that in many post-mortem examinations, even after a careful, laborious and persistent search, the missile has not been found. It was first sought for near the groin, where it was expected by some it would be found; failing to find it there, the pus channel was then followed up, but this procedure made it necessary to remove overlaying organs; these removed parts were temporarily placed in a large china wash-bowl until they could be examined in the order prescribed in the preliminary consultation. The pus channel led up to the fractured ribs and vertebræ. The position of the opening of exit of the bullet from the latter indicated a probability of its further track in the hæmorrhagic clot in the tissues removed. While an examination of the vertebræ was being made, one of the surgeons assisting turned his attention to the parts removed, and discovered there the position of the bullet. There was nothing at all of the nature of an accident in the manner in which it was found. It had formed for itself a cyst wall beneath the pancreas. After completing the examination of the vertebræ, I cut the cyst open and took the bullet out of it. It had been suggested by some that after the removal of the parts from the body their relations could no longer be recognized. This difficulty could only occur to one who was unfamiliar with anatomy. No formal reply has yet been made to the many unjust and senseless criticisms which have been so freely bestowed upon this autopsy. I had ex-

pected that a complete exposition of the points criticised would have been made in the course of the testimony of medical witnesses, but, with one exception, they were afforded no opportunity, and, one gentleman excepted, inadvertently omitted some particulars related above. I believe, therefore, the public should be made acquainted with the facts, in order that they may not either misjudge the surgeons, nor suppose the autopsy was incomplete, or was improperly conducted."

"**Ovariotomy**" is the title of an able and interesting article in the November, 1881, number of the *American Practitioner*, by Thomas Keith, M. D., F. R. C. S., E. "In a period extending over more than fourteen years," begins Dr. Keith, "the mortality in my 230 ovariotomies, done without antiseptics, was 14.5, or nearly one in seven. In the five years immediately preceding the use of the spray the mortality was but one in ten and a half, while in the last of those five years —the year before I began the use of the spray—there was but one death in twenty-one cases. So you see the mortality was steadily diminishing all that time. Immediately after I began to use the spray, I had two deaths—almost at once—both very bad cases. In the first eight under antiseptics, there were these two deaths, and then there was a run of eighty without a death. But you must remember the solution used at first was not very strong. As we went on and got to operating in the hospital we began to use the solution stronger."

"At first our greatest success was with the weak solutions. Toward the end we got to using the regular solution we use in everything—the five per cent. solution. I had not used this very long when I began to notice that the cases went on quite differently from what they had done before. The night after the operation we had very often high temperature—104°, 105°, 106°, and once 107°. We had never anything like that without antiseptics. In the entire 230 cases I have referred to, in only two did the temperature rise to 103° the first night, and it never went to 104°, 105°, or 107°. I did not then think it was the absorption of the carbolic acid that did it, but I know now that it was. It was after seeing a paper by Bantock that that occurred to me. When I began operating in the theatre at the Infirmary, I used the solutions strong (Lister's strength), and frequently we had high temperatures in simple cases. In the first case, which was a simple case without adhesions, the temperature rose to 105°

the first night. This was clearly traceable to the absorption of the carbolic acid. Then we began to have this rise frequently; so that there was a sort of general order left with the nurses to put on the ice-bag when the temperature rose to 103°; and often on the first morning after operation, when I came in, the ice-bag would be on. We had never had occasion to do this before. I recollect a nurse who had nursed about two hundred cases who had a patient one day with a high temperature, and I sent her some ice and an ice-bag, and she returned word that she did not know how to use them. I had forgotten that she had never had to do with high temperature. There is no doubt the carbolic acid raised the temperature the first night."

Dr. Keith next proceeds to emphasize the importance of drainage, citing some of his cases which prove conclusively the correctness of his reasoning on this subject. He says that he got into the habit of trusting too much to the spray to keep everything sweet about the wounds, and the drainage was neglected *pari passu*. He pays great stress on drainage.

"After the very first death from blood-poisoning, I began to use the stronger solutions; put the sponges in a one-in-twenty solution—a tremendous strength. Then, operating in the theatre, with the students going out and in, there was a constant rush of cold air, and the spray which used to do quite well at ten or twelve feet, had to be placed within two feet of the woman. The first four cases done in the theatre at the beginning of last session had hæmorrhage from the kidneys, and two of them died. I never had seen anything like that before. It was purely carbolic acid poisoning; of that I have no doubt whatever. The women who died went off quite differently from the other cases. They didn't swell up in the way the other cases did; they didn't have sickness and refuse their food; but on the third day there was hæmorrhage from the kidneys. One died—evidently from an intense case of carbolic acid poisoning—and one had convulsion. That settled the thing for me."

"I need hardly tell you how carbolic acid affected me in my own person, further than to say it poisoned me too. But I went on for eighteen months or two years; just so long as the patients did not suffer any. I worked away, and tried to get through the operations faster; put on the steam; got a big aspirator; did everything to shorten time. For a long time I did not ascribe the hæmorrhage from my own kidneys to carbolic acid; but I finally began to suspect it. It was Ban-

cock who first called my attention also to this ugly effect of the acid. I was repeatedly ill from it. I did not have any operations with the spray in the last half of December, 1880, and I had none in January and February, this year. I had one at the end of March, by which time I was getting pretty well over my former hæmorrhages. I was as bad as ever after the operation, and the patient did not recover well. Ever since that I have stopped the spray altogether, as I said, in ovariotomy." "Practically, I have not used antiseptics since, in the proper sense of the word, in my ovariotomies. Sometimes I do use very weak carbolic solutions, but not as spray; at other times I use water alone. I doubt very much whether the spray is of any use whatever in the operation of ovariotomy. I do not think I will adopt any of the new antiseptics, as the eucalyptus, etc."

Dr. Keith goes on to say that he has had twenty-six cases since he stopped the use of the spray, without a death, and that he had had twenty-six before he commenced its use, with but one death, making only one death in a total of fifty-two cases; "and you must bear in mind," he continues, "for it is an important point, that thirteen of these cases were done in the hospital where septic, no less than other dangers, are at the maximum."*

He speaks emphatically as regards the temperature since he abandoned the spray: "Since I gave up the spray I have not had any high temperatures—never anything like 103° in any case; seldom has the temperature gone above 100°. The nurses were astonished at it not rising."

The writer says he disinfects his sponges in a one-in-twenty solution after the first wash in soda and hot water. After this, they are washed and put into a solution of one-in-forty or sixty. "Sometimes, however, it should be said, I put them in hot water alone."

Silk and cat-gut ligatures are used—"cat-gut for simple things." Silk always for the pedicle. In closing the external wound, silk is used for the deep sutures; horse-hair for the superficial.

"I close the wound as perfectly as I can—as close as if it were a wound on the face. I do not look at it for a week generally. It is then healed. I cover it with carbolized gauze, softened with glycerin, about one-in-eight, and over that a layer of cotton wool and a flannel bandage."

*Note by the editor of the *American Practitioner*, Dr. D. W. Yandell: "Since this was written, I think Dr. Keith has done twelve other ovariotomies without a death."

"I drain more cases now than when I operated under antiseptics. I drain where the adhesions are extensive and where the abdomen will not dry. In some women the abdomen will dry without trouble; in others, there is a constant oozing going on; and when you cannot stop the bleeding, when your sponges are constantly filling up with blood, you must work away with the sponges and strive to remove every particle of moisture. Tie everything; stop the bleeding and leave the abdomen dry; and when you can't leave it dry, put in a drain. Of course this applies to bad cases only; and you will not get bad cases without draining. I put the drainage tube through the abdominal wall. It is a small, straight glass tube, adapted to the depth of the pelvis. You must see that it does not press injuriously upon the rectum. I feel how it is lying on the rectum, and if it is making pressure, I shift it up a little bit. I cover it with a sponge, and wrap that in an India-rubber cloth for cleanliness. Doing this way you may often drain for a week and not a drop escape on the dressing or the dress, it being all collected in the sponge." The sponges are examined within four or five hours to see if anything is on them. A syringe is used to draw the fluid through the tube if it will not run out of itself. Sponges are changed night and morning. Mr. Keith thinks it advisable to change under spray on account of flatus and sweating.

"In the old days I drained ten years without the spray; but I found when I kept the tube going a week it was almost always, but not always, putrid. I remember a case where I drained a sarcomatous tumor in a girl who had a double pleurisy. I drained off one hundred and twenty-six ounces without spray or anything, and for fourteen days that stuff remained perfectly pure and sweet till I took out the tube. I used just ordinary sponges, nothing else. In four or five days, in most cases, the tube, without some antiseptic, would become putrid. But anything putrid doesn't matter in ovariotomy after forty-eight hours."

"I formerly kept the drainage-tube in six days or a week, till the serum got quite sweet and pure—sometimes 48 hours. If the amount comes down to a drachm or two, I don't mind taking the tube out, and that without any kind of precautions. After all, though, you must be governed by the quantity that comes."

The ordinary quantity is from six to ten ounces twice daily, most of it on the sponge. Sometimes it does not come out. Sometimes it is very bloody, sometimes syrupy.

After the operation, a hypodermic of morphia is given on putting the patient to bed, to prevent vomiting and restlessness. Repeat it the first night. The most marked improvement in vomiting has occurred since ether has been used instead of chloroform. Use liquid diet, and stimulants if necessary, for the first three or four days or a week Dr. Keith does not give any food till flatus has passed. Patients sometimes vomit during the operation, when ether is used; but there is not the persistent vomiting which follows the use of chloroform. "Nor do I mind vomiting so much now as I used to do, especially when I have a drainage tube in. I rather like it in that case, because it helps to empty any fluids that accumulate." The catheter is avoided if possible. There should be no pressure on the abdomen except that made by the bandage, which is sometimes made strong in cases where the hæmorrhage is persistent. Dr. Keith does not use ice to the abdomen. Some patients like to suck ice, but hot water is preferred, as it stops the nausea, promotes perspiration and circulation. Ice checks these actions; still it should be used if temperature goes too high.

Mr. Keith never has found it necessary to re-open the abdomen, though before the introduction of drainage he punctured Douglas' cul-de-sac and got out the serum. "It was the red serum which killed." "I got into the way of taking the bearings of the uterus immediately after the operation; learned how the cervix was; and I learned that whenever there was much accumulation of stuff in the pelvis, the cervix would be found moved away toward the pubis." "You are perfectly safe to put in a needle in such cases. I have often done so and got out red serum; but since the drainage, I have needed nothing of the sort, unless there are specially bad symptoms."

One patient took acute septicæmia a week after the operation. Temperature rose to 104°, 105° and 106°, and in twenty-four or thirty-six hours, she was down to a skeleton. An examination showed there was fluid in the pelvis. There had been great adhesions. She "had a dry tongue, distended stomach, and was sick." A few stitches were removed, the finger introduced in search of collections. Some adhesions to the surface of the intestines were broken up, and the finger brought out "some putrid stuff." Everything was examined with the finger. "I thought, just after, I had done harm by all this poking, but in the course of the night a teacupful of stinking serum came out from the wound. It came from the part where there had been no

adhesion, and its escape saved the woman. Without it had escaped, I do believe she would have died."

"I don't know what to do when septicæmia sets in. You may do anything you like. If the patient is some days or a week on, and bad symptoms come, she will sometimes get well. Every one must make his own diagnosis—no rules cover all cases."

Dr. Keith has encountered tumors that he could not remove, but not often. They were nearly all malignant, and it can generally be ascertained as soon as the abdomen is opened, that they cannot be removed by the manner in which they "run into the tissues." In such cases, shut the abdomen up the best way you can. "The worst cases—cases where I have been once or twice completely beaten—are those associated with pregnancy. I was once completely beaten where the cyst was so adherent that I could make neither head nor tail of it. I simply left it and drained, and in spite of it all, the woman recovered." The same course was pursued in three or four cases where he knew beforehand that the tumor could not be gotten out. "Three of them were drained—at least the first two." In one, it was supposed to be a fibrous tumor. It grew and she was dying. "When first seen she was blue, vomiting, and had diarrhœa. About two gallons of putrid stuff were got out. The cyst was so adherent to the rectum and pelvis that I knew I need not try to take it out. After a week or two she improved a little. The stuff re-collected, and I again made an incision five or six inches long, just as if for operation, turned out a lot of hair and bone, washed out the cavity with chloride of zinc, dried it out as thoroughly as I could, and left it to suppurate. Contrary to my expectations, it suppurated but little, and the woman got well. Two or three others whom I treated in that way got well."

Always make the incision as small as you can consistently with easy manipulation. It should always admit the hand. Dr. Keith advises operation early.

"I tap a great deal. I like it. I never saw any harm from it when properly done, bnt I constantly see mischief from the effects of bad tapping." "The smaller the needle, the better, because the greatest risk in tapping, I think, is hæmorrhage." "I often tap to gain time if the legs are swollen; and then I frequently tap a small cyst, because a good many small cysts do not refill. I am speaking of cysts of the broad ligament; but I have had a good many patients —perhaps a dozen—with small cysts, cured by tapping."

"Sixty ounces of jelly" were taken from one, and she recovered. Tapping sometimes give "a little trouble," but Dr. Keith has never seen but one death result from it—(a patient tapped by a surgeon in Glasgow). He has never injected any fluid after tapping. After exploring with a fine needle, he empties with a fine needle if the fluid is thin; with a larger one, if thick. Bad tapping often gives much trouble; causes adhesions. Semi-solid tumors are often tapped from errors in diagnosis. "I am very careful to prevent any of the fluid of the cyst getting into the abdomen. It may do, and sometimes does, no harm, but it is a mistake to allow it, as well as unsurgical. But the cyst may contain septic fluid if it has been often tapped; you can't tell beforehand. The stuff may be swarming with bacteria—putrid. When a cyst bursts some patients take it quietly, others it kills right off."

Cysts burst sometimes from having too much force put on them. Sometimes he empties cysts by the aspirator, because they are so thin that the trocar is apt to burst them. He sometimes breaks up adhesions before untying the cyst; sometimes after. Doesn't use much force. The worst adhesions are to the under surface of the liver.

"As a rule I cauterize the pedicle. But for the last year I have been using silk ligatures a little. The cautery is a pretty thing, I think. You have no foreign body in; you are certain to have no bleeding, and the parts will slough and give no irritation."

Don't touch the pedicle much after it is cauterized. The pedicle rarely bleeds after cautery. Make the pressure even with the clamp. Burn slowly with a dull-red heat. Have the blades of the clamp hot enough to dry the tissues they compress. "The whole matter of clamp and cautery is a sort of combined forceps, pressure and cautery; it is not cautery alone. Nor will pressure do alone, because pressure by itself will not dry the thing; but when, to the pressure, you add the cautery, the clamp goes in almost like a piece of horn, perfectly dry, and no blood can be given out."

Dr. Keith confesses he does not know what the critical days are. He says he is "easy" if the patient gets through the first twenty-four hours pretty well. "In acute septicæmia, the mischief begins in from fourteen to sixteen hours as septic peritonitis. When twenty-four hours are over, and the patient's pulse is going down, and she is not sick, and is looking nice, I am pretty easy, especially if flatus has passed. Still some patients die after that time." Death sometimes occurs from an obstructed intestine.

Sometimes he uses perchloride of iron to arrest hæmorrhage; sometimes cautery; but fine cat-gut is used to tie every bleeding thing with. Oozing points do not require to be stopped longer than half an hour. You can tie larger masses better with silk than with cat-gut. Tie carefully and sponge thoroughly. "When the operation goes beyond an hour and a half, every five minutes lessens the patient's chances."

Clean the abdomen thoroughly and all the vessels, "and notice with special care the parts between the bladder and the uterus—parts so constantly filled with red serum." If anything remains, it is sure to be found there. "I use the reflector for the purpose of looking in upon the parts." "It is an enormous assistance."

"So far as the mere operative work and management of ovariotomy goes, I should say that the essentials of success are strict attention to details, perfect cleanliness, perfect nursing, perfect quiet, and unremitting care, such as all severe operations in surgery really demand. Stop the bleeding; no matter if your patient is almost dead, stop the bleeding, if this be possible; and when you can't stop it, put in a drainage-tube. Dry the abdomen as thoroughly as you can, and when you can't leave it dry, put in a drainage-tube. Finally, be gentle with everything."

"I do not go in much for fibroids, for they do no ill. A fibriod isn't like an ovarian tumor. The operation of taking out fibriods is now in the same position that ovariotomy was 20 years ago, though some say otherwise. I think the fibroids that should be removed are the rapidly-growing ones in young women."

"I think fibrous cysts should be taken out as soon as you can; but you cannot always remove them. I have done nine in all. Fibroids are five times as common as ovarian tumors." It is generally a matter of inconvenience and waiting only, till the woman gets past the menopause. It is risking a good deal to meddle with fibroids of the uterus. Hæmorrhage is the chief danger. Ergot is the best internal remedy. Care to avoid excesses in food and drink is of the greatest importance. Of the nine operated on, eight got well and one died from carbolic acid poisoning. "These were all cases of large tumors and removed at the vaginal junction along with the ovaries. The operation is identical with ovariotomy in its details, but more dangerous and awkward.

"I have no experience in extirpation of the uterus for malignant diseases, and I don't think I ever will have any.

You don't get such cases in time, and even though you did, the disease will come back."

Ovariotomy During Pregnancy.—H. P. C. Wilson, M. D., Baltimore, in the *Northwestern Lancet*, reports a case of ovariotomy, performed by himself, during the fourth month of pregnancy, with recovery of patient and delivery of a healthy child at term. Dr. Wilson's reasons for performing the radical operation instead of *repeatedly tapping* until after delivery and then operating for radical cure were as follows:

"1. Because pregnancy, though reasonably certain, is not absolutely so. I could not hear fœtal heart or placental souffle.

2. The patient is in every way a good subject for an operation, and the tumor is in good condition for an operation, apparently free from important adhesions.

3. If tapped and retapped and retapped (as will probably be necessary before confinement), the tumor, from being displaced by the enlarging uterus, will be likely to form so many and so unusual adhesions as to render its removal after delivery exceedingly hazardous.

4. The patient lives in a sparsely settled country, far from medical aid. The tumor, if tapped, will speedily refill, and if, with an enlarging uterus, she be not promptly tapped, from the seventh to the ninth month, there is danger of rupture of the sac, or tortion of the pedicle, and death. There would be no chance in her case for an operation after the rupture.

5. Barring the pregnancy, this patient and the tumor can never be in as good condition for operation as now. Repeated tapping must exhaust the patient; and her labor must be complicated by much exhaustion of body and anxiety of mind, with almost certain loss of the child.

6. Repeated tappings are not without risk to the mother and child. Peritonitis, septicæmia, abortion and death would overshadow her enfeebled health. I have lost one patient from general peritonitis, after aspirating an ovarian tumor.

7. One clean incision into the abdominal cavity under antiseptics, and the removal of an ovarian tumor, free from important adhesions, I consider to be of less danger to the mother than the risk of being let alone, tortion of the pedicle, rupture of the cyst, the complications of labor with two such tumors in the abdomen at the same time, the dangers of repeated tappings or failure to tap as promptly as necessary.

8. In this case the tumor is not a simple cyst, but a compound multilocular tumor chiefly fluid, but partly solid. The urgency of relieving the woman is great, both from distention and pressure on important organs, and the importunities of the woman for relief."

The Doctor further cites twenty-nine cases of ovariotomy during pregnancy, of whom twenty-four women recovered and five died. Twenty women went on to full term, and were delivered of healthy babes; thus forty-four lives were saved by the operation and fourteen lost. The author strongly advises operating early in pregnancy rather than tap and operate after labor.

Puerperal Eclampsia.—Prof. L. McFarlane, M. B., of the Toronto Medical School, contributes an article of interest to the *Canadian Journal of Medical Sciences*, December, 1881, on "Puerperal Eclampsia." He claims that full hypodermic doses of morphia controls the spasmodic movements speedily. He reports two cases in which he used one-fourth grain of sulphate of morphia and repeated it after some time. He thinks it would have been unnecessary to repeat the dose if he had used one-half a grain at first.

[*Query:* Whilst this treatment is doubtless appropriate to the anæmic variety, is it so in other forms of puerperal convulsions in which there is great blood pressure and plethora? —J. M.]

Proceedings of Societies.

Convention of Pharmacists—Organization of the Virginia State Pharmaceutical Association.

[Specially reported for the *Virginia Medical Monthly.*]

A convention of Pharmacists from different sections of the State, held in response to an invitation sent out by the Pharmaceutical Association of Petersburg, met in the parlor of the Young Men's Christian Association Wednesday, January 4, 1882. Representatives, in addition to those from Petersburg, were in attendance from Richmond, Norfolk, Staunton and Lynchburg. A number of other druggists of these and other cities, who were in correspondence with the Petersburg Association, regretted their inability to be present, while expressing their sympathy with, and approval of, the objects of the Convention.

The meeting was called to order by Mr. E. R. Beckwith, of Petersburg, on whose motion Mr. Wm. F. Spottswood, of Petersburg, was elected temporary chairman.

Mr. Beckwith was chosen temporary secretary.

It having been decided to form a State Pharmaceutical Association, the Chair was authorized to appoint a committee of one gentleman from each city represented to report officers for a permanent organization. The committee having retired, returned and reported the following officers:

President—T. Roberts Baker, Richmond, Va.

First Vice-President—C. A. Santos, Norfolk.

Second Vice-President—William E. French, Petersburg.

Third Vice-President—C. H. Lumsden, Lynchburg.

Fourth Vice-President—G. W. May, Staunton.

Secretary—E. R. Beckwith, Petersburg.

Treasurer—F. H. Masi, Norfolk.

Corresponding Secretary—Dr. E. A. Craighill, Lynchburg.

These officers were unanimously elected.

A committee was then appointed to report a Constitution and By-Laws for the government of the Association.

This committee reported a Constitution and By-Laws, which were adopted.

On motion, the President was directed to appoint a committee to draft and report a pharmacy law, to be presented to the Legislature for its action thereon.

The committee subsequently reported the law, which was approved and adopted as a whole.

On motion of Dr. Starke, of Petersburg, it was

Resolved, That all reputable druggists in the State shall be eligible to membership in the Association on sending their names to Mr. E. R. Beckwith, Secretary, Petersburg, Va., and who promise to comply with the following By-Laws:

"The initiation fee of this Association shall be one dollar, which, with the annual contribution for the current year, shall be paid into the treasury; and the applicant shall sign the Constitution and By-Laws before the close of the first annual meeting, to be held in Richmond on the third Tuesday in May next."

During the sessions of the Convention, the Petersburg druggists entertained their visiting brethren in the banquet room of Masonic Hall with an elegant supper, where toasts were passed round and freely responded to under the stimulating influences of a large bowl of apple toddy and an unlimited supply of sparkling champagne.

[We clip the following from the *Whig* of this city, under

date of January 9th, 1882, which clipping further explains the purposes of the Association. The objects of this Association, as herein set forth, meet with our unqualified approval.

"The bill introduced in the Virginia Senate on January 7th, 1882, by Mr. Wilcox, of Prince George county, 'to regulate the practice of pharmacy in this State, provides for incorporating the Virginia Pharmaceutical Association, the object of which is to unite the pharmacists and druggists of the State for mutual aid, encouragement and improvement; to encourage scientific research, develop pharmaceutical talent; to elevate the standard of professional thought, and ultimately restrict the practice of pharmacy to qualified pharmacists and druggists; that after the passage of the bill it shall not be lawful for any person, other than a registered pharmacist, to retail, compound or dispense medicines or poisons, or to open or conduct any drug store unless there be in the store a regular pharmacist, who shall have charge of the same.' The act does not prevent merchants from selling quinine, calomel, Epsom salts, castor oil, and other domestic medicines, or the sale of laudanum, paregoric or morphine in original packages as obtained from druggists. Any person, in order to be registered as a member of said Association, must be a graduate of some college in pharmacy recognized by the Virginia Pharmaceutical Association, or must at the time of the passage of the bill have had three years' experience in drug stores.

The bill further provides for the establishment by the Association of a Board of Examiners to examine all persons who shall apply to be registered as pharmacists."]

Book Notices, &c.

The Opium Habit and Alcoholism. By Dr. FRED. HEMAN HUBBARD. A. S. Barnes & Co., New York. 12mo. Pp. 259. Cloth. Price $2. (From Publishers.)

This is in reality a treatise on "the habits of opium and its compounds, alcohol, chloral hydrate, chloroform, potassium bromide and cannabis Indica, including their therapeutic indications, with suggestions for treating various painful complications." We have examined this book with some care, and the advices contained in it are valuable to physicians as well as to the unfortunate victims of the "habit" of

using any of the agents named in an improper manner. We have had several cases in our practice of "habits" regarding chiefly the undue use of opium and alcohol. Such cases are the most difficult to control that we have ever had anything to do with. We are more and more persuaded that while many patients may have still left them the self-will to control their indulgence in their vicious appetites, still many there are who require something more than the doctor's advice and words of caution. They require to be placed under restraint. We have tested and seen tested several cases in which absolute and suddenly dispensing with the stimulant was practised, and we have tried the gradual method of reducing the daily dose. We are now satisfied that the immediate and positive "cut-short" plan of treatment is the best, except in very rare instances, in which the delirium of inanition, as it might be called, or else other conditions of equal gravity were developed. With such patients, of course, the gradual method of withdrawal and the substitution of some of the better tonics, as specially recommended by our author, should be tried. We wish every intemperate person—intemperate as to the use of any of the agents herein mentioned—could be induced to read this book, and therefrom learn for himself or herself the great risks assumed by the opium eater or smoker, the whiskey tippler, etc.

Aids to Rational Therapeutics. By J. MILNER FOTHERGILL, M. D., F. R. C. P., New York. G. P. Putnam's Sons. 1882. Paper. 16mo. Pp. 121.

Fothergill has always been a favorite writer for the practical physician. The present book, however, is intended for the "young beginner;" but still there are some faults that we must call attention to—faults which some older practitioners cannot explain. For instance, we object very much to making such abbreviations as Dr. Fothergill does in many instances. For example, on page 91, we find reference to "Pil., Cal., Col., Co.," so often referred to before; then in several places we find prescriptions calling for "Cal." The student has to *infer* only from the context whether the author means calamus, calcaria, calomel, calx, or anything else of which "Cal." is an abbreviation. It sounds too much of quackishness for any author to use such abbreviations that most students do not understand, and that many preceptors cannot explain. We do not recommend the present work of Dr. Fothergill to students. The author has so complete a control of our ideas of therapeutic science, that we regret very

much the necessity of stating our convictions regarding this publication. We cannot advise our readers to buy the book even at twenty-five cents.

Hernia in Children, based on a Study of 500 *Cases under Personal Observation.* By EDWARD SWASEY. M. D., of the Hospital for the Ruptured and Crippled, New York. 8vo. Pp. 28. (From *Amer. Jour. Obstet. and Diseases of Women and Children*, July, 1880.)

Editorial.

An Act to Regulate the Practice of Medicine and Surgery.

Be it enacted by the General Assembly of Virginia:

1. There shall be for this State a Board of Medical Examiners, consisting of one member from each Congressional district in the State, and two from the State at large, whose term of office shall be four years, or until their successors are appointed and qualified. The term of office of the Board first appointed shall commence on the first day of January next.

2. The said Board shall consist of men learned in medicine and surgery, and shall be appointed by the Governor from a list of names, to be recommended to him by the Medical Society of Virginia, consisting of two names from each Congressional district, and four from the State at large. Such recommendations and appointments shall be made at some time prior to the first day of January next, and during every fourth year hereafter. Vacancies occurring in said Board shall be filled for the unexpired term by recommendations and appointments as aforesaid, within one year after they occur, two names to be recommended by said Society for each vacancy to be filled. In case said Society do not make such recommendations more than one month before the expiration of the time limited for any appointment under this act, then the Governor shall proceed to make such appointment, without such recommendations. Said recommendations shall be made by the votes of a majority of the members of said Society at some meeting thereof, at which a quorum shall be present, and the same shall be certified to the Governor by the President and Secretary of said Society. If any of said examiners shall cease to reside in the district from which he is appointed, it shall vacate his office.

3. The members of said Board of Medical Examiners shall qualify and take the usual oath of office before the county or corporation court of the county or corporation in which they shall respectively reside. The officers of said Board shall be a President, Vice-President, and Secretary (who shall also act as Treasurer)—such officers to be members of and elected by said Board. The first meeting of the same shall be at Richmond, at such time as the Governor shall notify the members by mail to assemble; and such first meeting may be held prior to the first day of January next, provided the members shall have previously qualified as aforesaid. Subsequent regular meetings shall be at such times and places as the Board may prescribe, and special meetings may be had upon the call of the President and two members; but there shall be not less than one regular meeting *per annum*. Five members of said Board shall be a quorum; said Board may organize at its first meeting, and may, at its first or any subsequent meeting, prescribe rules, regulations and by-laws for its own proceedings and government, and for the examination of candidates for the practice of medicine and surgery by its individual members.

4. It shall be the duty of said Board, at any of its meetings, and of the individual members of said Board, at any time, to examine all persons making applications to them who shall desire to commence the practice of medicine or surgery in this State. When the examination is by an individual member of the Board, he shall report the result of the same to the President thereof; and when an applicant shall have passed an examination satisfactory as to proficiency before three individual members of said Board, or before the Board in session, the President thereof shall grant to such applicant certificate to that effect. A fee to be prescribed by said Board, but not to exceed ten dollars, shall be paid to said Board (through such officers or members as it may designate) by each applicant before such examination is had. In case any applicant shall fail to pass a satisfactory examination before the Board or before the three individual members to whom he shall first apply, he shall not be permitted to stand any further examination within the next three months thereafter, nor until he shall have again paid the fee prescribed as aforesaid; provided, however, no applicant shall be rejected upon his examination on account of his adherence to any particular school of medicine or system of practice, nor on account of his views as to the method of treatment and cure of diseases.

5. The fund realized from the fees aforesaid shall be applied by the Board towards its expenses, including a reasonable compensation to the President and Secretary.

6. Any person who shall obtain a certificate as aforesaid, from the President of said Board, shall cause his name to be registered in the Clerk's office of the County or Corporation Court for the county or corporation in which he shall reside; and it shall be the duty of said clerk to register the name of every such person presenting such certificate in a book kept for the purpose as a part of the records of his court, and his fee for each registration shall be one dollar, to be paid by the person whose name is registered.

7. No person who shall commence the practice of medicine or surgery after the first day of January next shall practise as a physician or surgeon for compensation without having first obtained a certificate and caused his name to be registered as aforesaid. Any person violating the provisions of this section shall pay a fine of not less than fifty nor more than five hundred dollars for each offence, and shall be debarred from receiving any compensation for service rendered as such physician or surgeon.

8. Any person who shall have been assessed with a license tax as a physician or surgeon by any Commissioner of the Revenue in this State at any time prior to the first day of January next, shall be taken as having commenced the practice of medcine or surgery prior to that date; but any person who shall not have been so assessed shall be taken as not having commenced such practice prior to that date.

9. Any physician or surgeon who shall commence to practise after the first day of January next, and who shall reside in an adjoining State within ten miles of the boundary line of this State, shall be entitled to stand the examinations and receive the certificate herein-before provided for; and such certificate shall be registered as herein-before provided, in that county in this State which is nearest his place of residence; and such certificate and registration shall make it lawful for him to practise medicine and surgery.

10. Nothing in this act shall be taken as including or affecting in any way the practice of dentistry, nor shall it include physicians or surgeons residing in other States and called in consultation in a special case with a physician or surgeon residing in this State; nor shall it be construed as affecting or changing in any way the laws in reference to the license tax to be paid by physicians, surgeons and dentists.

Richmond Medical and Surgical Society.—At the regular meeting held December 27th, 1871, the following officers were elected for the ensuing year, to begin January, 1881: President, Dr. C. W. P. Brock; Vice-Presidents, Drs. John G. Skelton and Hugh M. Taylor; Secretary and Treasurer, Dr. Jacob Michaux. Dr. Paul F. Mundé, of New York city, was elected an Honorary Fellow. A feature connected with the election of honorary fellows of this Society, that may be worthy of imitation by other Societies, is that each one so elected is expected to contribute a paper to the Society. Drs. E. L. Keyes and John T. Metcalf, of New York city, Harvey Black, Superintendent of the Eastern [Va.] Lunatic Asylum, at Williamsburg, Va., and Henry F. Campbell, of Augusta, Ga., are already Honorary Fellows. Dr. Keyes has already contributed a valuable paper on "Arterio-Venous Aneurism," which was published in the December number, 1881, of this journal. The other gentlemen elected have each promised an early contribution. The subjects of their papers are left to their selection. Under the present officers-elect, we are sure this Society will be a marked success. We congratulate the Society upon having made such happy selections.

Medical Chemists.—We have not the slightest idea of entering now into the subject which forms the caption of this note. We wish simply to advise some of our correspondents not to send us specimens of urine, etc., with the request, accompanying the specimen, that we get the State Chemical Analyst, or other chemist of our choice, to analyze and report to him what he discovers as the result of his analysis. We would feel ashamed to carry such a letter with such a "specimen" to any professional chemist, without the offer of a fee for the services he might have to render in such a case. Dr. William H. Taylor, of this city, and Dr. J. W. Mallet, of the University of Virginia, are both excellent chemists of widely recognized authority regarding chemical questions. Send "specimens" needing chemical analyses to either of these gentlemen, but always, if one wishes to be entirely right, with a suitable fee. Laborers are worthy of their hire.

The Rocky Mountain Medical Times—a new enterprise to be begun at Denver, Colorado, January, 1882—is to be a monthly journal of medical, surgical and obstetrical science, and is to be edited by Drs. Thomas H. Hawkins and Frank

A. E. Disney, Terms, $3 a year; single copy 25 cents. It will take the place of the *Rocky Mountain Medical Review*. We cheerfully put it on our exchange list.

The Northeast Virginia Medical Society—formerly known as the Fauquier Medical Society—we are glad to learn is in a most prosperous condition. It has some thirty or more members, and is in full affiliation with the Medical Society of Virginia. The President is required to appoint at each quarterly meeting, at least four fellows to report at the next ensuing meeting any case or cases of interest appearing in their practice or under their observation. At the meeting held last April (1881), the following preamble and resolutions proposed by Dr. H. M. Clarkson, the Corresponding Secretary of the Society (of Haymarket, Prince William county, Va.), and warmly advocated by Drs. Hamilton and Harris, were adopted without dissent:

"Whereas, This Society is neither sufficiently comprehensive in the meaning of its name nor catholic in its aims, therefore,

Resolved, That this Society be hereafter known as 'The Northeast Virginia Medical Society.'

Resolved, That this Society be made, practically, a clinical Society, for the examination of cases of interest, and especially cases in which consultation is desirable for solving a difficult or doubtful diagnosis.

Resolved, That we take pride in following the example initiated by the Southwest Virginia Medical Society in allowing indigent persons afflicted with disease to come before the Society for examination, and to be prescribed for or operated upon when an operation is necessary, free of charge."

By request of Dr. Hamilton, Dr. Harris then gave their joint experience in a late formidable case of puerperal eclampsia, in which, it would seem, that venesection saved their patient.

The Missouri Medical College Clinical Amphitheatre, in the city of St. Louis, recently erected at a cost of about $14,000, is said to be the finest amphitheatre of the kind in the world. The room is 55 feet square, with a skylight 16x20 feet—thus giving perfect illumination. Commodious tiers of seats, with high backs—thus preventing the putting of feet upon them—capable of seating 400 or more, are well arranged. Separate reception rooms are made for male and female patients. The room for the females has toilet arrangements and other accommodations.

The Transactions of the Medical Society of Virginia for 1881 appear in connection with this issue of the *Monthly*. The delay in the publication of the *Transactions* is not due to want of activity on the part of the Committee on Publications of the Society nor to negligence on the part of the Editor of the *Monthly;* but to the fact that some of the authors of papers in the *Transactions* failed to send in their manuscripts or revised proof-sheets in time for the earlier issue of the journal.

We have cut short the number of pages of the January number of the journal proper, because of the bulk of the *Transactions*. We promise our subscribers, however, that the number of journal pages shall fully equal that promised for the annual volume, namely, 1,008 pages.

Our editorial notice, elsewhere to be found in this number, will show that, with the beginning of Volume IX, commencing April, 1882, we will have no occasion to offer any excuse for delay in the prompt appearance of the *Monthly*. Our subscribers will please bear with us for delay in the issue of the February and probably of the March numbers, as this latter number will contain the index of the *eighth* annual volume of the journal.

Under other circumstances than those that exist, it might be construed improper for us to express an opinion in regard to the papers published in the *Transactions*. Few State Medical Societies' publications of recent date are more valuable than those of the Virginia Society for this year.

The address of the President by the distinguished Dr. Hunter McGuire, of this city, whose name is familiar throughout the South and Southwest, and an authority throughout United States and, we may say, more than National, is in itself worthy of rank with the invaluable work of the great surgeon of Philadelphia, Dr. Samuel W. Gross. In fact, Dr. McGuire's paper on "Cancer of the Breast," is an addition of great value to the work of Dr. Gross, as also to those of other eminent authors who have written on the same subject. His studious personal experience and eminent practice entitle his every word to the careful consideration of practitioners of Surgery.

The report on "Advances in Anatomy," by Dr. Christopher Tompkins, of Richmond, is an excellent *resumé* of anatomical facts, not yet recorded in text-books.

Dr. Meade C. Kemper, of Goshen, also makes an excellent report on "Advances in Surgery."

Dr. Bedford Brown, of Alexandria, reviews, with careful

precision, many of the "Advances in the Practice of Medicine," especially relating to fever.

Unfortunately, reporters for the other departments did not submit reports; yet the volunteer papers presented by other distinguished Fellows, are worthy of careful reading and, in some instances, of imperishable record. We name among such papers the contribution of Dr. Joseph A. White, of Richmond, on "Catarrhal Deafness;" Dr. J. A. Alexander, of Broadway, on "Abscess of the Liver;" Dr. G. Wm. Semple, of Hampton, on the "Emetic Effect of Chloroform, administered by Deglutition, and the advantages of Hydrobromate of Quinia, administered Hypodermically;" Dr. Otis F. Manson, of Richmond, on "Physiological Action of Quinia"—an exhaustive and valuable paper. Dr. Manson's remarks on "Cholera Infantum," too, are worthy of close study and practical application.

In view of the character of the papers presented, to which only reference has been made above, we will not detain our readers longer. We only ask that every reader will give each of these papers a careful reading.

The Medical Society of Virginia is composed of men that have not sought preferment in the rank of medical literature, but are seeking to benefit humanity by their efforts to advance medical science, and to give relief to their patients; at the same time, their practical contributions will rank with the most serviceable of the country.

The Medical Society of Virginia, organized in 1870, has been a regular development. There has not been a year since its organization that it has not advanced in numbers, in professional worth and in finances. Most of the profession of Virginia that are worth having in this organization are already recorded among its Fellows; but there are still many who, with the recorded annual development and growing success of the Society, and its increasing success professionally, should at once unite themselves with it.

The object of the Medical Society of Virginia is only to promote the good of the Society and the welfare of the citizens of the State. Who is it of the profession that does not wish to advance the good of his patient as well as his own welfare? We leave this matter with the doctor who reads this note.

It is to be hoped that every true-hearted, regular practitioner in Virginia will, at once, give his attention to the proposed bill in regard to the practice of medicine and surgery, now before the Legislature of Virginia, elsewhere pub-

lished in this number, and give his influence to secure its passage. Possibly some emendations may be made by legislators; but let us, as a profession, go heart and heart with any movement that seeks to elevate our calling above that of quacks and charlatans. We may not accomplish all that we wish, but let us accomplish all that we can.

We trust that our friends in othes States will excuse us for taking up so much space in advocating a measure which is just now of so much importance in this State, but which is, in some other States, of equally vital importance—if not now, will be at a near future.

The Ninth Volume of the Monthly will begin with the April, number. In the future conduct of the *Virginia Medical Monthly*, the editor will be aided by the following corps of assistants: Dr. Wm. C. Dabney, of Charlottesville, Va., will make Translations and Analyses from our French and German exchanges; Dr. Jacob Michaux, of Richmond, Va., will specially devote his attention to making Analyses, Selections, etc., from our valuable American and English exchanges, and Dr. W. G. Eggleston, of Hampden Sidney College, Va., will translate from Spanish, Portugese, Italian and other foreign exchanges. With these valuable assistants in the management of the "*Monthly*," the editor believes that during the current year its value will be greatly increased.

Mr. Leroy S. Edwards, of Richmond, Va., will have the business management of the *Monthly*, and to him all matters of business should be addressed. The editor will be left with only the editorial control, and to him should be sent all articles, manuscripts, etc., intended for the pages of the *Monthly*.

"Ex-Presidents' Prize of the Medical Society of Virginia.—To add to the interest of the meetings of the Medical Society of Virginia and to the value of its *Transactions*, and to stimulate members to prepare and present important papers, the Ex Presidents have decided to offer annually a prize for the best essay on some selected Medical Subject, and a prize for the best essay on some selected Surgical Subject. Each prize this year will be a gold medal, of $50 in value, or its equivalent in money. Prizes are open for competition to all members of the Society. The Subject for the *Medical Essay* this year will be: "Alcohol, its use and effects as a beverage and medicine." The Subject for the *Surgical Essay* this year will be: "Recent progress in abdominal surgery."

Candidates for these prizes are required to notify the Recording Secretary at least two weeks before the meeting of the Society of their intention to present papers, and to inform him of the probable length of time required to read them.

"The Society will first determine, by ballot, whether any paper is worthy of a prize, and afterwards, by ballot, which one is entitled to it. The disposition of all papers presented for these prizes is to be determined by the Society."

This is a magnanimous offer from the Ex-Presidents of the Society, which should lead many to strive for the prize. The study required of each one who seeks this prize—whether he gains it or not—will redound to his great individual good by the learning he will thereby attain. The Ex-Presidents themselves deserve the unanimous vote of thanks of the Society for the voluntary and unsolicited effort on their part to promote the interests of the organization. We understand that these prizes are also open to all who may send in their applications for membership and be elected Fellows at the next annual session, to convene at Fauquier White Sulphur Springs, Va., next fall.

Richmond Eye, Ear and Throat Infirmary.—About two and half years ago, Dr. Joseph A. White, who gives exclusive attention to eye, ear and throat diseases, was invited here from Baltimore, where he held a Professorship in those branches, as Richmond had grown large enough to feel the need of a specialist, and he is already well known throughout the State. Shortly after his arrival, he opened a small Dispensary for eye, ear and throat diseases; and in the face of many obstacles and discouragements, he has succeeded in enlarging its scope of usefulness by the establishment last April (1881) of an In-door Department, the Richmond Eye, Ear and Throat Infirmary, No. 13, N. Fourth street, managed by ladies representing the different religious denominations, an admirable institution, with accommodations for as many as ten patients at a time, and equipped with everything needed to treat and care for such cases. A few days ago the Board of Trustees, composed of prominent citizens, held its annual meeting, and the reports of the Lady Managers and of the Surgeon-in-Charge were submitted. Since the Infirmary was equipped, 26 in-door patients, all blind—15 of them with cataract—were received, operated upon successfully, and returned home with restored sight. They spent 338 days in the Infimary, the average being about 28 days; 587 out-patients, who were paid 5,807 visits, were received and

treated in the last sixteen months, and 103 operations were performed. This is a most gratifying result, not only to the Trustees and Dr. White, to whose untiring work the institution owes its success, but also to his professional brethren who, one and all, recognize its necessity in our midst, and who cordially wish him further success in his labors for the public weal. This is one step towards filling the crying need of medical institutions in Richmond.

Physician's Daily Pocket Record.—We are just in receipt of this well-tried and widely-known "visiting list," which has now been issued for sixteen years. It contains many useful memoranda, posological tables, etc. It is edited and published by Dr. D. G. Brinton, of Philadelphia, although the author is stated to be Dr. S. W. Butler, who has been dead for several years. As compared with the formerly valuable "Butler's visiting list," the present issue is a great improvement—such an improvement as is the necessary consequence of the yearly attention to the wants of subscribers. This "List," as usual, contains a "perpetual almanac" for fifty-seven years, from 1861 to 1917. Besides the posological table, doses of medicine, etc., the "List" contains a few pages for the "treatment of emergencies," "examination of urine," a list of "new remedies," and finely ruled pages for the visiting list itself. The book is for sale in this city by Messrs. West, Johnston & Co.

The American Medical Digest, under the editorship of Dr. John C. Lester, A. M., made its appearance in January, 1882, and its first issue gives promise of excellent management. As a medical monthly summary it should meet a wide range of readers. It is based upon the plan of the London *Medical Record*. Published by H. Campbell & Co., 21 Park Row, New York.

The Missouri Valley Medical Journal issued its first number at St. Joseph, Mo., in January. Few journals make a better showing in the outset, and we predict that Drs. Boteler and Hoyt, the editors, will succeed in their efforts to supply a valuable medical journal to the profession in the great Valley of the Missouri, and throughout the territory contiguous.

Gubernatorial Medical Appointment.—Governor William E. Cameron has removed from the position of medical superin-

tendent of the Penitentiary that excellent officer, Dr. M. M. Walker, and appointed in his place, Dr. E. A. Drewry, of Southampton county. The retiring officer enjoyed the full confidence of the profession throughout the State, and well filled the office. But if a change was necessary for any reason, we are happy to state that a most excellent appointment has been made in Dr. Drewry. No physician would be more faithful and energetic in meeting the requirements of the position to which he has been recently called than Dr. Drewry.

Vaccine Agent.—By appointment by Governor Cameron, Dr. Lewis Wheat, of this city, succeeds Dr. Geo. W. Harris as Vaccine Agent for the State of Virginia. The retiring officer, who had, for many years, filled the post with perfect acceptability, is succeeded by a physician and gentleman who will not in any wise omit the duties of his agency, which just now prove specially onerous.

Albany Medical College.—The annual dinner of the Alumni Association of the above institution will take place at the Delevan House, Wednesday, March 1st, 1882, immediately after the Commencement exercises at Sneddle Hall. A. Vanderveer, M. D., President; W. G. Tucker, M. D., Secretary.

State or City Hospital.—A number of the practitioners of this city held a meeting in the Hustings Court-room, of this city, a few nights ago, and appointed a committee to draft suitable plans to present to the Legislature of Virginia, now in session, for the establishment of a State or General Hospital somewhat similar to the plan adopted for the Pennsylvania Hospital, located in Philadelphia; and if this proposition fails of success, then an effort will be made for a Richmond City Hospital. It is a reflection upon the State that it has made no material provision for its invalided class of population; and as for the city of Richmond, we know of no city in the union of anything like its population, that has not established, not only its Almshouse with its hospital ward, but likewise a separate *general* city hospital. The committee appointed for the purpose will report at an adjourned meeting of the profession of Richmond city.

Obituary Record.

Dr. Orlando Fairfax, formerly of Alexandria, Va., but since the war a practitioner of medicine of great skill and intelligence, and of prominence in this city, was found dead in his bed on the morning of January 12th, 1882. He had retired the night before in the apparent enjoyment of his usual health. There was no member of the profession purer in his motives, purer in his acts, purer in his affections. He lived and died as a Christian hero—honored and loved by all who knew him.

Prof. Robert T. Coleman has so accurately portrayed his character in the following remarks made before the Richmond Academy of Medicine and the profession at large, at a called meeting of the same, January 12th, 1882, that we adopt them as expressive of the common sentiment of the profession and people of Richmond. Generous and unselfish toward his rivals, lenient towards those who were not his equals, remarkably kind in his advice and judgment to to the younger members of the profession, regardful of every interest of his patients, heroic in all things that affected principle, a constant student of the science of, and a frequent contributor to, the literature of medicine, his life will long leave its ennobling influence upon this community, and his death will be sadly felt as a calamity. He worked in the professional ranks up to the day before his death. He died in the harness.

"PREAMBLE AND RESOLUTIONS.

The formal, unmeaning parade of words after death are out of place here. When it is told that Dr. Orlando Fairfax is dead, to those who knew him, all has been said that need to be said. To those who knew him not, eulogy could not bring the respect and affection which, toward a man so modest, even personal and intimate acquaintance barely served to draw forth in deserved measure. His life is his eulogy. In contemplating that life, from the beginning to its close, enthusiasm is with difficulty repressed. He was of a house so ancient and so blameless; he was himself so true in every action to the stock from which he sprang—upright, steadfast, manly, simple—in a word, he was a Christian gentleman of a type so high that none is higher. As a Virginian, a patriot, what was he not? Whatever he had and all that he

had was his country's, freely given, and lost without a murmur. As a physician, he had a love for his calling that always brings skill, and an ardor that in his seventy-sixth year led him to a course of reading as if he had but begun to learn a science in which for half a century he had stood so high. As a man, he was all a husband, father, friend could be. Love for his household was but a part of the great love he bore to the whole brotherhood of man. Alike in his home and in the discharge of the arduous duties of his calling, he showed a devotion which few might equal and no one could surpass; not merely a sense of duty, but a delight in duty; the warmth of his heart so animating and quickening the intellect that his very presence in the sick chamber diffused a mingled light and heat, a radiance of peace and hope which those who once experienced them can never forget. Pure and truthful, he inspired absolute trust in all with whom he came in contact. His great professional knowledge was obscured by the gentleness of his manner—the doctor was forgotten in the friend. Beyond men, beyond most women, he was modest. His virtues shrank from the light, and the course of his life was like a meadow stream hidden by flowers, which diffuses blessings but flows on unseen. He never sought self, and his very silence made report of him. Ripe in years, firm in the faith of his fathers, mature in wisdom, acquainted but too well with human affliction and the vanity of life, beloved and honored, the good and faithful servant, having done his Master's work well, he has entered into his rest. He leaves to his children the unspotted name of his house; to his professional brethren, the example of a life long and perfect in its usefulness; and to his State and section the memory of a patriotism that spared not anything, neither the blood of his best-loved sons nor the last ounce of what he counted but dross in the balance—his worldly wealth.

Resolved, That as a token of their respect and esteem, the Academy of Medicine and the medical profession of Richmond will attend in a body the funeral of Dr. Fairfax.

Resolved, That this testimonial to the worth of Dr. Fairfax be published in the Richmond and Alexandria daily papers and the *Southern Churchman*, and that a copy be forwarded to the family of the deceased.

H. G. Houston, Assistant Secretary."

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Original Communications.

ART. I—**Result of Operation for Uterine Polypus; Subperitoneal Fibroid of the Uterus; Diagnosis of Pregnancy; Cracked Nipple.** A Clinic. By WILLIAM M. POLK, M. D., Professor of Obstetrics and the Diseases of Women and Children in the Medical Department of the University of New York City, N. Y.

CASE I.—This is a patient from whom a polypus was removed two weeks ago; and I wish only to call your attention to the change which has taken place in the cervix and body of the uterus itself. The mass was protruding so that it could be very easily recognized, and the cervix was dilated to about the size of a trade dollar. The cavity of the uterus itself measured about three and a-half inches in depth; now it measures three inches. The moment that the mass was cut off there was immediate contraction of the organ—such contraction that it stopped all hæmorrhage. There has been going on here a kind of involution, because, with a uterus containing a mass the size of this, there is not exactly the same amount of increase in size, but the same kind of increase that we see in pregnancy; there is not the same amount, but there is the same kind of muscular tissue change in the organ here as takes place in pregnancy. The cervix has contracted so firmly that the internal os is entirely closed, and the external os, the tissues of which were soft—so soft that it was rather difficult to tell the cervical tissue from the vaginal tissue—is now, especially the ante-

rior lip, a great deal harder to the touch, so that now there is no difficulty in making out the difference between the tissues of the cervix and vagina. Now, in passing your finger back on the os, in place of the ordinary os, such as you find in a uterus that has not undergone any damage, you find a slit which runs laterally, upon the left side; it does not run entirely across the neck of the uterus. There is also a slight slit upon the right side. Now, passing your finger backward, you come to the posterior lip, which is longer than the anterior lip, and, as regards the sensation imparted to your finger, it is a little firmer. The uterus is quite high up; so high up that, unless you introduce your finger well into the vagina, it is rather difficult to make out as to its mobility. But when we do get the finger well up against the cervix and make pressure, we can move the body in any direction, and there is no hardness about the vaginal roof. There is nothing wrong with the appendages of the uterus; there is no peritonitis, no hæmatocele, and no growth of any kind to interfere with the motion of the organ.

The point to which I wish to call especial attention here is with respect to the involution which has taken place. There is, as I have stated before, a certain amount of growth of the uterus itself where there has been an intra-uterine tumor, and when the tumor is removed, an involution takes place in the uterus which reduces it in size. The patient should be kept quiet after the removal of the tumor, in order to prevent hæmorrhage, and to allow of involution.

Besides that, in this case we had another point, namely, a laceration of the cervix. Now, that laceration is disconnected entirely from the tumor that existed here sometime ago, it is an old affair—a thing which took place probably at her first confinement, as these lacerations usually do. This is a case in which, although there is quite an extensive slit in the cervix, extending well up to the vaginal junction on the left side, and about half way between the os proper and the vaginal junction on the right side, yet it had created no special symptoms. This woman, up to the time of the development of the tumor, had no symptoms of any moment; and, in fact, when the tumor developed, she complained only of a good deal of bearing-down pain at the time of her menses.

These lacerations are not always as innocent as in this case. This, however, is a patient who, although she has extensive laceration, has suffered no inconvenience. It is not every case that requires an operation. This laceration is not to be interfered with unless it gives rise to symptoms.

In making the diagnosis of laceration, you will find that the finger is really the better means—that is, better as compared with the sight through the speculum. But when you come to judge of the results of the laceration, then a view of the parts is necessary. Now the cervix is exposed at the bottom of the vagina, and I have fixed the tenaculum pretty firmly into it, and am now making gentle but firm traction upon the uterus in order to get it down. The anterior lip presents a bulbous appearance. The slit is a little semilunar; the posterior lip is quite crescent-shaped; the posterior lip is much enlarged, but you do not notice any erosion there at all, nor any undue redness. That bulbous mass on the anterior lip, however, has an abnormal appearance—it is a good deal redder than it should be; but when you come to look at it closely, however, it is nothing more than the inner cervix turned out—a kind of extroversion of the cervix, and that prominent mass of tissue is somewhat eroded by contact of the surface with the tumor itself. But now I take it for granted that that appearance will disappear. You must remember that this cervix had been grasping that tumor a long time, and that of itself was sufficient to cause a certain amount of erosion. That erosion will probably become covered over with healthy tissue, and in time the patient will be as free from symptoms as she was before the development of the polypus.

You will observe that I have dragged the uterus down within an inch of the vaginal opening. Now, where you have to operate upon the cervix of the uterus, or where you have the body carefully in order to make out the presence of a fibroid tumor, for example, you are justified in making this traction, provided there be no attachment of the uterus to the tissue around—provided there be no cellulitis, for instance. The uterus is quite mobile, but the traction must be made gently, not suddenly, lest a cellulitis be excited. It

is a wise precaution, in making such examinations, to keep the patient quiet several hours, and inject hot water into the vagina, so as to abort any tendency to inflammation that may occur. The house physician will see that this patient, on being returned to the ward, has a vaginal injection of water as hot as it can be borne.

Case II.—Our next patient is a woman about 30 years of age, who has borne several children, and who came into the hospital last summer for a lacerated cervix. It extended quite up to the vaginal junction on either side. It was operated upon by the house physician, and the success of the operation has been complete. In fact, unless you look at the os closely, it is rather difficult to tell whether it was ever lacerated. But the patient has developed other symptoms, disconnected altogether from the laceration, and the treatment of her present condition, I am obliged to say, from what I have seen of such cases, will not be so easily done as was that of the laceration, and consequently not so easily cured. You have just heard the patient give her history. But to recapitulate, the facts of the case are these when put into a shape:—She originally entered the hospital for the whites, and pains, etc., connected with the laceration of the cervix. The rest here in the hospital, the tonic treatment, and the sewing up of the laceration relieved her of her symptoms so much that she left the hospital, feeling comparatively well. That improvement continued for about three months. Then she began to notice that when she carried weights up stairs she felt a pain in the lower portion of her belly, especially upon the left side. But she had some little pain on the left side before leaving the hospital, yet so slight as not to attract especial attention; still it became so aggravated afterwards as to incapacitate her from carrying weights up stairs. About the 1st of February or middle of January, she noticed that her menses became much more frequent than it had been. In other words, she had her menses every two weeks, and it would last sometimes six days, sometimes nine days; so that you see, coming on every two weeks and lasting that length of time, the woman was bleeding too much. That, I say, has been going on since about the middle of January or the 1st of February.

When we came to make an examination, we found the cervix uteri to be slit. Now hold the finger on the cervix and press on the abdomen with the other hand, and get the uterus between the fingers of the hand on the abdomen and that

within the vagina. The body of the uterus is found to be pushed backward. The cervix points towards the symphisis pubis. That is a point in favor of retroversion. The body of the uterus, as you feel it through the abdominal walls, does not seem to be enlarged. When you carry your finger up on the left side of the uterus, that space seems plugged up, as it were. You meet with a little obstruction on the left side—some projection from the body of the uterus. That is rather difficult a condition to appreciate, although it is there. The uterus is quite movable; it can be shifted in any position.

Now, the facts of the case are simply these: That this wo man has had these slight hæmorrhages, together with some pain, the hæmorrhage being frequent as has been shown. The uterus is a little bit retroverted. In addition to that, as the finger is carried up along the sides of the uterus, there is a projection from the left external uterine wall. I think there is an abnormality connected with the uterus itself—that is, when you make a physical examination of the uterus and its surroundings, we find the uterus is movable; you can feel well down into the iliac fossæ; you can map out pretty clearly the ovarian regions, and you are enabled to appreciate that there is no enlargement of those organs. This mass, perhaps, tilts the uterus a little bit over to the left side, though so slightly as to be hardly appreciable. When this woman stands we find that this uterus is a little lower in the pelvis than is natural.

The facts of the case, then, are these: That we have a movable uterus with a growth attached to it. I say attached to it, because when we move the uterus we move the growth. We can grasp the cervix easily between the two fingers, one in the vagina and the other upon the abdomen. We can move the uterus in various directions without much trouble, and with the movement of the uterus there is movement of this mass we referred to. The cavity of the uterus measures about two inches and three-quarters. That is about normal. She has a tumor of some kind. We have tumors from cellulitis; we have tumors from hæmatocele, ovarian tumors, and fibroid tumors. The uterus not being enlarged, would exclude fibroid tumor. The uterus is not enlarged—that is

true. I mean the canal is not enlarged when measured by the sound. Have we a history of hæmatocele? Do you get here a history of *sudden*, violent pain, and evidences of blood-loss, such as is common in extravasation of blood in the sub-peritoneal tissue? There is no history at all of that, and besides, in case of hæmatocele, you have, as a rule, some peritonitis or cellulitis associated with it. There is no evidence of cellulitis here. The uterus is movable. If the uterus were not movable, with such a mass as that the chances would be, of course, that the mass, probably, was the result of cellulitis.

Now, then, you have excluded hæmatocele and cellulitis, and you are able to exclude an enlarged ovary by the fact of the intimate connection of the mass with the uterus, and also by the additional fact that you can appreciate the ovaries entirely outside of the body of the uterus, or disconnected from it. But there are two other conditions that might give rise to a tumor located as this is located—extra-uterine pregnancy, particularly if the fœtus were developed in that portion of the Fallopian tube that passes through the body itself—tubal pregnancy proper. But we have pretty good proof that it is not extra-uterine pregnancy. This mass is not larger than an ordinary walnut. These symptoms have been going on for four or five months. This hæmorrhage has been going on three and a-half months; the pain has been going on four or five months; so that that is sufficient to exclude extra-uterine pregnancy. Now, if you had seen this patient within three weeks or a month after the hæmorrhage made its appearance, and had made an examination, it might have been a very difficult matter to say whether it was an extra-uterine pregnancy, because the tumor in the first place, has all the sensation to the touch that belongs to an extra-uterine pregnancy, and, in addition to that, the hæmorrhage is suggestive, and also the pain which she says she had at the time of her menses. But we have gotten hold of the case at such a period that we can safely exclude that.

Is it not a growth on the side of the uterus—on the wall? I do not think it is internal, for the sound passes without the slightest opposition straight to the fundus. The pain is dull

in character, except when you exert pressure; then she complains of a good deal of soreness—a good deal of tenderness. Subperitoneal fibroids are not associated with much pain, but here you have a case which is accompanied with much pain and tenderness. Now, my idea of it is, that there is probably some local peritonitis immediately around the growth—not enough to extend deeply, to involve the broad ligaments, and give rise to bands such as would tie down the uterus; but a kind of inflammation that would correspond to an ordinary dry pleurisy located over a tuberculous deposit, for instance, which, you know, simply forms an exudation immediately around the deposit, and does not extend any great distance beyond. Its presence, however, is sufficient to create a good deal of pain. That I believe to be the condition here—that there is a slight thickening due to the local cellulitis around the mass that is responsible for the pain. The tumor is clearly extra-uterine; it is subperitoneal, but I say that because when I come to pass the sound into the cavity of the uterus, I find it meets with no resistance. Now, as a general thing, when these tumors project well into the body of the uterus, you will find that they interfere directly with the passage of the sound. It is true that even the sound is fallacious in that examination sometimes, and that the only true way to ascertain the facts in connection with the exact location of the tumor is to dilate the cervix, and introduce the finger, if necessary, up to the fundus of the uterus. But I hardly think that is necessary here. At any rate, I am disposed to believe that it is local inflammation around a subperitoneal tumor, that it originally began in the wall of the uterus itself—that is in the central portion of it—but sprang rather towards the peritoneal covering. But evidently there is a good deal of chronic congestion, and perhaps inflammation of the mucous membrane, immediately over the site of this tumor, which accounts for the hæmorrhage from which this woman suffers.

The peculiarities of the case, then, are these, that you have a subperitoneal fibroid tumor that gives a good deal of pain—much more pain than is common in these cases; and, in the next place, you have such a tumor with a good deal

of hæmorrhage. As a rule, these subperitoneal fibroids do not have hæmorrhage to any extent associated with them. In fact, the general rule is, they do not have hæmorrhage. I take it for granted, then, that here is a case, as I said, in which you have the entire wall of the uterus affected at the point of growth, and in addition to that you have a cellulitis superadded. These tumors usually develop so as not to excite any cellulitis.

Now, the question is, what are we to do for it? We should curette the interior of the uterus for the purpose of removing the hypertrophy of the mucous tissue that is directly opposite the location of the fibroid. Of course, if I found that the fibroid projected into the cavity of the uterus itself, why, after doing that I would be obliged to say to my patient that it would probably return; but if the cavity of the uterus itself is free from any accumulation in that direction, the curette would probably be all that is necessary to relieve hæmorrhage. That complaint to her is one of the most important, for the reason that it is undermining her constitution by the anæmia it is giving rise to. Then, so far as the pain is concerned, counter-irritation in the shape of blisters would be of benefit. I believe that would be sufficient, kept up for months—a blister every four or five weeks to abort the attacks. Her blood condition, of course, would have to be looked out for by means of tonics; and then, if the uterus tended to sag downward and procidentia were threatened, it would have to be supported by a pessary. Ergot would have a good influence in this case possibly, in inducing a diminution in the growth of the tumor. The action of ergot in these cases is to cause contraction of the uterine fibres, and all these tumors contain a good deal of uterine structure; they are acted upon by ergot as is the uterus itself, and the constant contraction of the muscular fibres of the growth in many cases has the effect not only of diminishing the hæmorrhage that results from them, but in some cases of enucleating the tumor itself—of forcing the tumor out of its bed, and resulting possibly in a certain amount of atrophy of the growth.

Those measures constitute the treatment of the case. It

would not be safe to promise a speedy cure, because you know that subperitoneal fibroids are among the most intractable complaints that you have to deal with in connection with diseases of women.

Now, I wish to show you what can be done with the lacerated cervix by a proper kind of operation. The patient now being in Sims' position, you can see the result of the operation on the lacerated cervix. Had there been any difficulty in determining whether that tumor were connected directly with the body of the uterus, I should have resorted to Sims' repositor in order to demonstrate the fact. The idea is to pass the probe repositor into the cavity of the uterus, then fix it in position, and by means of it you can rotate the body of the uterus in any direction, and in that way appreciate whether any growth located in the pelvis is attached to the uterus or not. But, as I say, by ordinary bi-manual manipulation we can appreciate the facts as they are here; therefore it is not necessary to resort to any further procedure.

Case III.—This patient is a colored woman, thirty-eight years of age, who has been married eighteen years. She has had four living children and two miscarriages. Her last two pregnancies resulted in miscarriage—the first about five years ago, continuing to the eighth month; the last, four years ago, continuing to the fourth month. She has been well since then, up to about last Christmas. Her menses had been regular. In December last she began to feel a sickness at the stomach, which continued until the middle of January, and about the first of January she noticed that her breasts began to contain milk, and that her stomach was enlarged. She also felt a tightness around the waist. She had vericose veins of the legs. Her menses have continued all this time, the first two flows being increased in quantity, attended by sharp, intense pain across the small of the back and in the abdomen, which compelled her to remain in bed during two or three days.

Then her history is, briefly, this: Morning sickness with vomiting during the month of December; an enlargement of the breasts, from which milk flowed on pressure, about the first of January; swelling of the abdomen; instead of suppression of the menses, there was menorrhagia, lasting, in one instance, ten days; she had sudden sharp pains, which, how-

ever, she does not locate very exactly, rubbing her hand all over her stomach; but on close inquiry we find the pains were in the neighborhood of the uterus; she had vericose veins in the legs.

Now, this seems to be a very suggestive case. What will account for her symptoms? "Pregnancy," I hear suggested; but how would you account for the continuance of her menses, especially occurring in such profuse quantity? Under ordinary circumstances, pregnancy puts a stop to the menses, as you know. "It may be a case of extra-uterine pregnancy." Yes. Then, what are the two circumstances connected with this case which would suggest extra-uterine pregnancy? "Continuation of the menses is one." Yes; that with its irregular character and the abdominal pain are the symptoms most characteristic of extra-uterine pregnancy in this case, and most to be relied upon short of a physical examination. But we may have a continuation of the menses even though the pregnancy be normal, but as a rule the menses in such cases are not profuse. The cause of that flow of blood during a normal pregnancy would most likely be the presence of a lacerated cervix, which, at the period of congestion, would bleed, owing to its ulcerated condition. Then, again, we know that up to the completion of the second month of pregnancy, there is quite a space between the decidua reflexa and the decidua vera, so that in passing a sound into the cavity of the uterus or through the internal os, you do not of necessity penetrate into the cavity of the ovum, or the cavity of the decidua reflexa. You find an open space, in other words, which is capable of pouring forth a considerable quantity of blood, and this blood, the external os being open, can, of course, gain ready access to the vagina. Such are the conditions which may possibly allow of menstruation in a woman normally pregnant; but, as I have said, the flow of blood is usually far less than what we have had here. In fact, I might say it is always far less. It is one which lasts probably not more than a day, or, at the outside, not more than two or four days. But here we have, according to the patient's statement, the signs of pregnancy with the presence of the menses, which continued ten days, the flow being quite profuse and attended with pain.

Now, in making a physical examination, we must endeavor to ascertain whether there is anything in the woman's pelvis, aside from the natural organs. If it is extra-uterine pregnancy, the likelihood is that the uterus will not be found specially enlarged at the fourth month. I say *specially* enlarged; I mean by that, not sufficiently enlarged to enable us to appreciate it distinctly by merely an abdominal examination. But there will exist alongside—outside of the uterus—a tumor, which tumor, of course, will vary in location, according as the condition be one of simple abdominal or partly tubal pregnancy. If it is simply abdominal, the likelihood is the tumor will be in the middle line; if tubal, of course it will occupy the position of an ovarian tumor. Now, on making the examination, we find the uterus a little elevated in the pelvis; but during the early months of a normal pregnancy, it is low, rather than high in the pelvis. It is low, because it is enlarged sufficiently to weigh it down by force of gravity. That is true up to the third or fourth month, when it becomes so much enlarged that it seeks the abdominal cavity for more space. Now, it is four months since this woman began to have symptoms of pregnancy, and the uterus is now in a position corresponding to about the fourth month of a normal pregnancy. But if this were a case of extra-uterine pregnancy, the uterus would be forced down into the pelvic cavity instead of rising up into the abdominal cavity, for the reason that the weight of the tumor pressing upon the uterus would cause it to descend. There is nothing abnormal in this woman's pelvic cavity except a uterus slightly increased in size. It is of about the size it would be in a two months' normal pregnancy. Absence of a tumor in the abdominal cavity must of course exclude the idea of extra-uterine pregnancy.

And now comes the question, is she pregnant at all? for she has certain signs of pregnancy, and the uterus is enlarged to a size corresponding to about the second month of pregnancy. Certainly, then, she cannot be four months pregnant, as her other symptoms might seem to indicate.

Then there must be something out of the way somewhere, and let us inquire what it may be. On examining the

breasts, we find on pressure that a little milk exudes, but the breasts are not full; they are flabby, relaxed, and the veins are not enlarged. In other words, there is nothing about these breasts which would indicate pregnancy, except the presence of a little colostrum. The mere appearance of colostrum in the breasts of a woman who has borne children, even sometime after her last labor, is no conclusive proof of present pregnancy. Therefore we can, in this case, lay that fact—the presence of colostrum in the breasts—aside, for she has borne children previously. The presence of colostrum in the breasts of one who has not yet borne children is more conclusive evidence of pregnancy than in one who has not borne children. When we come to examine this woman's abdomen, we do not find it any more enlarged than what might easily be accounted for on the supposition that she is a little unduly tympanitic. We are forced to the conclusion, therefore, that this woman is not pregnant.

We are so thoroughly convinced of this that we have passed the sound into the uterus and have found that the cavity is unusually large, and that the body of the organ is increased in size. Now we have here hæmorrhages from time to time, and how are we to account for it? That is the question to be answered at present. In all likelihood this is due either to granular degeneration or to some polypoid formation upon the mucous membrane of the uterus. I say that because there is no irregularity of the uterus itself. The os internum is entirely closed, and therefore I hardly think it can be due to a fibroid, though you know that in people of her nationality (African) fibroid tumors are more common than in others. At any rate, one of the above three conditions must account for her symptom. The cervix is not hard, it is not indurated, and presents none of the ordinary appearances which belong to malignant disease. We can not arrive at a conclusive diagnosis until we dilate the cervical canal and see just what is within. We are justified in doing that in this case, for these hæmorrhages are severe enough to weaken the woman considerably. Now the structures of the uterus offer too much rigidity to do this by

rapid dilatation, and we will have to do it by introducing a tent. We use the tupelo tent preferably, because being made of wood it is less likely to give rise to septicæmia than if we used the sponge tent; at the same time, it will swell large enough to dilate the canal sufficiently for our purposes. Having dilated the canal, we shall be able to determine what is the exact cause of her bleeding. If it be a polypus or granulation it can be removed.

We can do nothing more this morning than to introduce the tent, and by to-morrow the cavity of the uterus will be open for inspection.

There is one difficulty presenting in this case; the patient has a lacerated cervix. Lacerated cervix has frequently a great deal to do with enlargement of the body of the uterus; in fact, it is supposed by some to be responsible for most of the cases of sub-involution.

With regard to tents, let me say this, that the introduction of the tent ordinarily is a simple enough matter, but it should always be borne in mind that the tent may be the occasion of a cellulitis, so that whenever you introduce one, you should be prepared for that emergency. Now, if there be an old cellulitis, especially if there be any induration or accumulation left from the old cellulitis, the sponge tent should not be introduced. That is made an invariable rule by one of our best gynæcologists. He says you should wait until the cellular inflammation can be subdued. That, I think, is a good general rule, but there are occasions when the necessities of the case require the introduction of the tent, although that contra-indication exist. There is no such contra-indication here; both broad ligaments are entirely free from inflammation, and the uterus itself is quite movable. There is no hardening nor accumulation in the pelvic cellular tissue.

In introducing the tent you will make use of Sims' speculum, the patient lying in the corresponding position. The cervix is pulled down so as to get it sufficiently near to manipulate it handily; the tent is then inserted. In this case we shall probably experience no difficulty, for the uterine canal is perfectly straight, but in some cases where the uterus

is bent you will experience a good deal of difficulty. In such cases the sponge or the sea-tangle tent can be inserted much easier than this, as they are not so inflexible. After having introduced the tent it is well to put a little cotton against it so as to hold it in place. Especially is it necessary to do so here, for it has a strong tendency to slip out, owing to the laceration of the cervix.

I may say in passing, that this case shows the importance of never taking as conclusive evidence a patient's statement that she is pregnant if it be of importance for you or for her to have the question settled definitely. But a short time ago a patient came to me who considered herself pregnant, and that it was a case of extra-uterine pregnancy. She supposed her pregnancy dated back twelve months. I must say that many of the symptoms did seem to substantiate her diagnosis. There was a cessation of the menses, an enlargement of the breasts, a presence of some milk, and so on. Labor pains apparently came on in November last, and so sure was she and the attending physician that she was pregnant that he spent a night at her house watching for the immediate birth of the child. She was in labor apparently all night, and the physician made himself comfortable and remained over night, but the next morning the pains disappeared and he went home. He supposed that it was an attempt at premature birth, as the nine months had not yet expired. She had no further attempt at labor however, and she came here to have her case investigated, being satisfied that the operation of gastrotomy would have to be performed for the relief of an extra-uterine pregnancy. I put her under ether and found that the enlargement was nothing more than hysterical tympanitis. The uterus was of normal size. In other words, it was a case of spurious pregnancy. Now, the practitioner who allowed the patient to labor under the delusion was probably as good a physician as you or I; but the difficulty in the case was that he allowed himself to be morally persuaded not to make an examination. It was in a portion of the country where a vaginal examination is considered to be the last thing to which a woman shall be subjected short of death. That may be all right enough under

ordinary circumstances, but in this case it was certainly the duty of the patient, as well as of the practitioner, to have an examination made which would have cleared matters up at once. The physician, however, allowed himself to be influenced entirely by her statement, which was far from explaining the true nature of her condition, namely, a case of spurious pregnancy in which the symptoms had been due chiefly to the hysterical nature of the patient. The abdominal enlargement was nothing more than ordinary hysterical tympanites, and the poverty of her blood was due partly to malarial poisoning.

Case IV.—This woman was confined two weeks ago yesterday. Her confinement was all right. When she came here she was suffering from nothing but an abrasion of the nipple. This abrasion is not so large as it was a day or two ago. This is the common form of abrasion that you are likely to meet with in ordinary obstetrical practice. The following is what was done for the patient: The nipple was covered with a shield. I usually prefer zinc, because that is readily made and can usually be obtained without any trouble. A shield made of wax, having a depresssion in it to fit over the parts like a hollow cone, does very good service, keeping the clothes from touching the abrasion and also preventing the moisture from evaporating and leaving the parts dry. There is one trouble which stands in the way of a cure of these cracked nipples, particularly where you keep them covered up in this way, and that is the way that spores make their appearance and keep up the irritation. I am in the habit of using a mixture of two drachms of the sulphite of soda to four ounces of water, with which I have the nipple washed the moment the child finishes nursing. The entire nipple is washed off, and then this shield is placed over it and allowed to remain until the child nurses again. To be still more particular, especially if the child have thrush, I have its mouth washed out with the same substance diluted, or even the strong solution may not be out of place. This treatment, I think, will, in the majority of cases, effect a cure, particularly if you begin the treatment in time. But in bad cases, where you have not taken charge of the case until after the crack has extended considerably, and in women who are so nervous that they cannot stand the irritation produced by the child's nursing, you will have to suspend nursing entirely.

This patient, I said, was confined two weeks ago. Everything went on well until about four days ago, when she had an increase of temperature. Now, that was about the ninth day, and you know we usually say that a woman who reaches the end of the ninth day after confinement without any fever is all right. In the majority of instances that is true, but now and then you will find that puerperal fever will develop even at so late a period as that. The reason we feel pretty safe after the ninth day is, that by that time such changes have taken place in the uterus itself as to prevent the absorption of septic material from the canal or from the body of the uterus.

Now, the occurrence of fever here made us feel particularly uneasy, because, as I said, sometimes bad cases of puerperal fever will develop even so late as the ninth day. Now, the point for us to determine was, whether it was puerperal fever or the result of some inflammation. Cellulitis occurs not infrequently in women as late as the ninth or fifteenth day after labor, which would give rise to such a temperature as hers.

When we came to make an examination we found one or two conditions which were rather suggestive. In the first place, she has a split perineum and the surface is raw. Now, that is a focus to begin with for septic infection. As the lochial discharges poured over that surface, a sufficient amount would be absorbed to create inflammation. On examining the cervix uteri we found a transverse laceration on both sides, which constitutes another place from which septic poisoning might orignate. On examining the uterus itself we found it a little sensitive, a little tender, and away up on the right side there is apparently, I will not say positively, a slight induration. I will not say positively, because she is so sensitive that I cannot make a thorough examination.

Now, that we suppose to be the cause of her fever, and we hope it is, because if it be, there is no very special cause for uneasiness, as generally these cases do very well. The inflammation subsides, the material is absorbed, and they get well with a very good result. Still, you must bear in mind that we have here two points, one at the perineum and the other at the cervix, which may act as infecting points for the entire system.

Now, there is no special odor connected with the discharge. If there were we might be disposed to explore the

cavity of the uterus itself in search of an explanation of the increase of temperature. Where you find the discharge very offensive, especially as it comes from the cervix, it is a good plan always to cleanse out the cavity of the uterus. It was not considered necessary to do so in this case, owing to the fact that there was no special odor. Now, in cleansing the cavity of the uterus in such cases, you will find it comparatively an easy process. It is only necessary that you proceed with care, with gentleness. Place the woman in Sims' position; take the tenaculum and put it into the lips of the uterus and draw it down so as to get it as near to the os vaginæ as you can. In making this traction so as to bring it down, do not do it continuously, but draw it down by gentle intermittent tractions. Having then brought the uterus down as near the ostium vaginæ as you can, you may, as I am in the habit of doing, swab out the interior of the uterus with carbolized cotton. I wrap a piece of absorbent cotton around the roughened end of an applicator—roughened so as to prevent the cotton from slipping off in the cavity of the uterus, which it is liable to do if you use the ordinary smooth applicator. This is dipped into a one or two per cent. solution of carbolic acid and used carefully in swabbing out the cavity of the uterus. Now, this swabbing will be sufficient, generally, to remove any portion of the placenta that may be present. If not, then you must take a large curette and go gently over the wall of the uterus, and then return to the swabbing, and you will succeed in dislodging every particle of tissue that may have remained. But to be still more certain, however, that the cavity of the uterus is thoroughly cleansed, I use in addition to this a one or a one and a-half per cent. solution of carbolic acid as an injection into the cavity of the uterus. As it is but a short time after labor, the cavity of the uterus is usually plenty large to allow a free entrance and exit of the fluid. If, however, the uterus should be so far contracted that you fear the fluid has not a free exit from its cavity, and that as a result of remaining in there it might get up into the Fallopian tubes, you may dilate the uterus before making the injection. I let the water flow into it until it comes out perfectly clean,

and subsequently I make the injections only once in the twenty-four hours—that is, if the temperature remains up; if the temperature falls, it is only necessary to make the vaginal injections. In this case, as there was no special odor connected with the discharge, and as the discharge was supposed to come directly from the cervix, and as we thought the rise of temperature was due to this little cellulitis which seems to exist on the right side, or else to the slit in the perineum and cervix, nothing has been used except warm douches into the vagina and a two per cent. solution of carbolic acid. The warm douches were given for the cellulitis; the carbolic acid as a disinfectant to the lacerations. Her temperature has been subsiding until it is now only ninety-nine in the morning with a slight tendency to rise in the afternoon.

ART. II.—**Boracic Acid Powder for Granular Lids.** By JAMES L. MINOR, M. D., Assistant Surgeon to the New York Eye and Ear Dispensary, etc., New York City, N. Y.

The intractable character of many cases of granular lids, furnishes ample means of testing the action of any medicine supposed to be useful in their treatment; and the benefit frequently accruing from a *change* in the application of a remedy which has been used for some time suggests the propriety of placing additional agents at our command in the treatment of a disease, at once so common and so obstinate. And having been impressed with the beneficial effect of powdered boracic acid upon succulent granulations in the ear, it occurred to me that it ought to be used with advantage in certain forms of granular lids; and, too, recalling the old Belgium treatment of pulverized acetate of lead in this affection, I decided to use boracic acid for the same purpose.

The cases selected for this treatment have been chiefly those in which the papillary granulations stood out as prominent fleshy masses, with deep inter-papillary crevices, and accompanied by scanty serous secretion.

I have used the pulverized acid as follows: The lids being thoroughly everted, the powder is spread freely over the

whole conjunctival surface with a camel's hair brush. The acid is generously applied, and mixing with the discharge from the lids, it readily gains access to the cracks and crevices between the granulations, and thus comes into direct contact with the entire surface upon which it is desired to act. The immediate effect is to increase lachrymation and to cause a burning, gritty sensation, with some pain. These symptoms usually pass off within ten minutes, and are followed by an amelioration of all the symptoms which existed before the application of the acid. The granulations may look less gorged and prominent, but I have been able to discover little change in the naked eye appearances of the conjunctiva after a single application of the powder. The powder was used three times a week, because the patients were seen at the hospital clinic which I attended tri-weekly, but there are no indications that it should not be used daily. I commenced this mode of treatment nearly six months ago, and attempted to keep a record of the cases so treated, with an idea of tabulating them and formulating the results, but to no purpose, for the slight degree of change noted, from time to time, resolved itself into gradual but steady improvement, without any remarkable leaps to a successful cure. In this respect boracic acid only resembles other agents used for the same purpose. It is, however, less painful than the ordinary caustic or astringent applications, and in my hands has given a more satisfactory result; and patients who have received this treatment frequently ask to have "the white powder" used again, as being less severe in its action, but more potent in affording relief than other applications which have been made. I have used it with success in various forms of granular lids and trachoma; and in one case of indolent corneal ulcer associated with granular lids, marked and immediate improvement followed the boracic acid treatment.

The abundant serous discharge which follows the direct application of boracic acid, is only partly due to the conjunctival irritation caused by its presence; on granulation tissue in the ear and on indolent ulcers elsewhere, it occasions a free serous flux when it is used. Whether an osmotic current is established or not, it is certainly a fact that succulent tissue

is relieved of its superabundant serum, and thereby contracts. Hence boracic acid may be looked upon, to a certain extent, as a *depurative* to such tissues; but whether its beneficial effect is to be ascribed entirely to the relief of circumvascular pressure, thereby favoring a return to a healthy circulation and normal nutrition, or to additional curative action, are questions to be decided by further investigation. It is certainly to be anticipated that a cure effected by such a remedy as boracic acid will leave the conjunctival membrane in a healthier condition than is seen in cures resulting from the use of caustic applications.

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Clinical Reports.

Occlusion of Bowel—Gonorrhœa the Remote Cause. By CHAS. C. CONWAY, M. D., Rapidan, Va.

June 6. 1881. I was called to see Nellie Collins (colored), æt. 20, and found her suffering with considerable pain in the lower part of the abdomen. She had taken a full dose of Epsom salts during the preceding day, which had acted freely upon her bowels. I administered a full dose of Dover's powder, and enjoined rest.

I did not visit her again until I was called, on the night of *June* 7, when I found the patient suffering from intense pain in the right iliac region, and also with persistent vomiting. Failing to relieve her sufferings with repeated doses of tincture of opium, on account of its being rejected by the stomach, I used morphia sulphate hypodermically as often as necessary to relieve the pain. Its administration also stopped the vomiting entirely, so that the patient took an abundant quantity of milk afterwards.

She lingered, however, for only three days—general peritonitis having rapidly supervened, which disease carried off the patient

Dr. R. M. Slaughter performed the autopsy, in the presence of Drs. Scott and Somerville, with the following result:

The intestines were adherent to themselves and to adjacent viscera, as well as to the walls of the abdomen in many places, and the small intestines were immensely distended with gas, as well as by a purulent fluid. The large intes-

tines were very much contracted, and entirely empty. The ileum was found about ten inches from the ileo-cæcal valve, entirely occluded, by being bound down by a pseudo-membrane. The right Fallopian tube was very much distended with pus, small quantities of which had begun to exude, through a small opening, into the peritoneal cavity.

I know that this woman had had a long-standing and neglected case of gonorrhœa, and believe that this disease had extended up through the uterus and Fallopian tube or tubes, into the abdomen, producing salpingitis, which occluded both extremities of the tube. This occasioned the pus to accumulate to such an extent as to break through into the peritoneal cavity—its specific character greatly aggravating the inflammation.

Förster reports two cases where this accident occurred from salpingitis; Wagner mentions one case occurring in a pregnant woman. There are also several cases cited by Von Depsauer and Wylie; and although these authors do not refer to gonorrhœa as the source, Thomas does mention two cases which almost proved fatal from gonorrhœal inflammation of the Fallopian tubes.

Original Translations.

From the Spanish and Italian. By WM. G. EGGLESTON, M. D., Hampden Sidney College, Va.

Treatment of Insanity by Hypodermic of Muriate of Morphia. August Voisin has treated and cured 27 cases of insanity—15 in private practice—of which 2 suffered from melancholia, and 3 from hysterical mania. Twelve were hospital cases—8 suffering from melancholia and hallucinations, and 4 from religious insanity, confessedly very difficult to cure. The maximum doses employed, and which he progressively reached were .09 to .10 gramme daily. It was increased to grs. x daily in one case of moaning lypemania—generally considered incurable.—*Gaz. Med. da Bahia—La Union Med.*

Diagnosis of Pulmonary Cancer.—Prof. Sée says in a lecture: "Primitive cancer manifests itself as follows: Principally by dreadful, permanent dyspnœa, always exacerbated by movements, even when slight. This dyspnœa is more

troublesome and severe than in any other malady. The compression of a bronchus or of the pneumogastric augments its intensity. The cough is especially significant; the power is deficient; but when it exists it may be insupportable, and is due to compression of the laryngeal nerves. A much more important symptom is the expectoration.* The pain is generally very severe on account of the pleura being affected, and compression of the intercostal nerves. When the *general* phenomena exist, the diagnosis is complete. The physical signs are:

1. *Dulness.* This does not always result, as in tuberculosis, at the special seat of the disease; and when it does occur, it differs from pneumonic dulness in that, if primary, it occupies one side of the thorax only, while the pneumonic dulness *may* occupy both.

2. *Loss of vesicular murmur* in the dull region. Rarely it is replaced by a blowing sound, which ceases when the organ is completely invaded, and the air cells closed.

3. *Loss of normal movement* of the thorax.

4. *Displacement of certain adjacent organs.* The liver, heart or spleen may be more or less displaced.

A *compressing* cancer gives symptoms which may lead the surgeon astray—e. g., the vena cava superior or the subclavian may be pressed upon and cause œdema of the head and arms. By pressure on the œsophagus it may cause more or less *dysphagia.* Pressure on one subclavian may cause a difference in the radial pulses. It is diagnosed from tuberculosis by the fever movement, by the absence of fine crackles, and by the expectoration. From chronic pneumonia it is diagnosed by the greater intensity of the dyspnœa, by the sputa, and by the absence of localized deposits. In pneumonia, too, the sound is generally rough; here it is blowing (if present). Pleurisy, with effusion, has no characteristic expectoration; the respiratory murmur is totally lost, and the dulness begins at the bottom of the chest, and completely covers the space occupied by the fluid. This is not the case with cancer.†—*La Independencia Medica.*

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*Generally described as "currant jelly."—TRANSLATOR.

† We may sum up the symptoms of pulmonary cancer thus:

1. Deep pains, due to pressure on various nerves.
2. Dulness, with bronchophony, in case of a tumor.
3. Bruit, if the tumor presses on an artery.
4. Œdema of head and arms if it presses on a large vein.
5. Cough and spasm of the glottis if it presses on the recurrent laryngeal nerve.
6. Inequality of radial pulse from pressure on one subclavian.

Iodoform in Puerperal Septicæmia.—Maggioli says (in *Gazetta Med. di Roma*) that iodoform is easily tolerated and absorbed by the mucous membrane of the stomach and intestines. It is also very diffusible in the fluids and tissues of the animal economy, for we find it in the urine, the saliva, tears, perspiration, milk, nasal mucus, menstrual fluid, expired air, etc. Besides its great diffusibility, it remains in the blood and tissues, for we get a marked re-action of *iodine* in the urine, two, three or four days after the last dose has been administered (Moleschatti, Righini). Once absorbed into the blood and tissues, it breaks up and sets free its iodine in the nascent state, which is exceptionally powerful and active. Does this iodine circulate in contact with the tissues and cells simply dissolved with the fat, or combined with the albumen and converted into the albuminate of iodine, or both at the same time? This question is not yet solved. Iodoform, administered in quantities of grains xxx to xlv and divided into small doses of one-third to three-fourths of a grain at a time, never produces the bad results of Högges, Binz, Moleschotti, or Nothnagel. Of the iodine preparations, iodoform contains more iodine than all the others (nine-tenths by weight), and we cannot think it hurtful to the human economy in such doses. In therapy, this agent is accepted and used by all surgeons as the best topical and alterative remedy for wounds and infected ulcers. Now, if it is such an excellent *local* antiseptic, why should it not be used internally against the septic virus which has invaded the blood and tissues, and tends to reproduction and multiplication? The great diffusibility of iodoform in the organism, and the possibility of large doses on the one hand and its long continuance in the system on the other, are extremely favorable conditions, and leave much to be hoped of its value in puerperal sepsis.

I have only seen and studied four cases. Prof. Moleschotti has reported two others. In all six cases, there was a grave puerperal state and pyo-septicæmia. As regards my four cases, iodoform was used internally, and so far as I can see, the recoveries were due to that agent. In the other two cases, it was used epidermically in the form of a pomade, to relieve the peritoneal pain, and to dissolve the exudation in the vicinity of the uterus. (Both were cases of *infected puer-*

7. Currant-jelly expectoration—*pathognomonic*.
8. Dysphagia from pressure on the œsophagus.
9. Displacement of organs, from pressure.
10. Rapidly developing cachexia, with its concomitants.—TRANS.

peral para- and peri-metritis.) Certainly, six cases cannot establish a position so high as I take regarding iodoform. But it is to be hoped that others will try it, and make the statistics more numerous and conclusive. I am convinced that it is destined to assume great importance in the treatment of septic maladies.

I am glad to know that several physicians have employed it with satisfaction in the form of suppositories, unguents and powders in the treatment of lacerations and wounds, whether septic or healthy, of the internal genitals and vaginal portions of the neck of the uterus. Dr. Lupò, who has obtained better effects by its interual use in infected wounds than by any other agent, believes that it will replace carbolic acid in the preventive treatment of sepsis. It is my opinion, then, that iodoform is most efficacious against septic virus already absorbed, by neutralizing its noxious properties, arresting it in its invasion, and, in fine, by aiding the organs and infected and inflamed tissues to overcome it and return to their normal state. I use the following formula for the internal administration of iodoform:

℞. Iodoform (pure).....gr. $\frac{1}{3}$—$\frac{3}{4}$
Extract lactuci sativæ..... .....gr. $\frac{1}{3}$
(Or Ext. nucis vomicæ.....gr. $\frac{1}{120}$)

Mix and sign: Make pil. No. 1, or multiply by 48, and make pil. No. xlviii.

One pill is to be given every hour for the first three days of the puerperal fever—containing from $\frac{1}{3}$ to $\frac{3}{4}$ grain of iodoform, as the case requires—to diminish the fever and arrest the progress of the disease; then at longer intervals until complete recovery takes place. Or, after recovery, it may be well to continue its use in minimum doses for 5 to 7 days. The extract of lettuce or nux vomica may be replaced by any desired agent not incompatible with iodoform.* The formula of Dr. Moleschotti for external use is:

℞. Iodoform (pure).....gr. xv
Melted lard..... .....℥iv
(Or Elastic colodion.....℥iv)
Add to disguise the odor—
Essence of peppermint.....
Essence of orange flowers..... aa gtt. x

M., and set away in a small cup well closed. Apply with the finger or a brush, two or three times a day, to the hypogastric region. Prof. Moleschotti has found in cummin a

*Quinine and digitalis are antagonistic.—TRANS.

means of obviating the disagreeable eructations caused by the internal administration of the agent, as well as of disguising the smell. Add grs. iss to every grs. xv of iodoform.

Hypodermics of Citrate of Iron in Anæmia.—Ciaramelli, from a series of experiments, has concluded that iron, given by the stomach, is eliminated by the bile, and scarcely at all by the urine. Given hypodermically, it is mostly eliminated by the kidneys; hence, taken internally, it does not get into the general circulation, as it should. He then began the daily injection of thirty to forty minims of an aqueous solution of the ammoniated citrate of iron, of which sixteen minims contain three-fourths of a grain of iron. After the injection the cheeks of the patient began to assume a rose color, and day by day, as he continued the practice, the other phenomena of anæmia disappeared. The urine always contained iron. The local action of iron consists in a good deal of pain and itching. This was obviated by cloths moistened with cold water. The only physiological action worthy of note is a slight cardio-vascular excitement. Though no general conclusions can be drawn from so few cases, the method is certainly worthy of trial.—*Gaz. Med. de Roma.*

From the French and Spanish. By CHARLES R. CULLEN, M. D., (P. O. Richmond, Va.)

Permanganate of Potassium as an Antidote for the Poison of Serpents.—Before the Paris Academy of Science Dr. Lacerde read an article on this subject. We commenced two months ago to study the effect of certain substances—chemical and botanical—on the effects produced by the inoculation of the poison of serpents, which experiments have led to important facts. After having known the inefficacy more or less of the perchloride of iron, of borax, of the nitrate of mercury, of tannin, and of divers other chemical substances, on the general and local effects of the poison of serpents, we have been brought to astonishing results in the use of the permanganate of potassium. In conducting these experiments we proceeded in this manner: The poison was received in cotton, say eight grammes of poison to ten of distilled water, the poison being taken from several bites of the serpents. A syringeful was injected into the cellular tissue of the groin and thigh of dogs. One or two minutes afterwards, we injected in the same places a small quantity of a filtered solution of the permanganate of potassium containing 0.01 gramme. The dogs

next day showed no sign of the poison, except a small local irritation at the entering point of the syringe. The same poison injected in a similar manner, without the permanganate, into other dogs, produces great swelling, and abscesses were smaller with loss of substance and of tissue. These results encouraged us to try the same substance in the case of injecting poison into the veins. We have already made thirty experiments—two cases not unsuccessful. These partial failures were made on animals badly nourished, very feeble and very young. In a certain number of cases we have injected *half* a syringeful of the permanganate in dogs bitten twelve or fifteen times, and with the exception of a little cardiac acceleration, lasting only a short time, the animal had no further trouble. The animals were looked after several days and made good recoveries.

In a series of cases we have injected the poison in the veins, and with the usual results. At the moment the animal exhibited a great pupillary dilatation, respiratory and cardiac troubles, spasmodic action of kidneys and bowels; we have injected the Swaine medicine at one time into the vein. In three minutes, sometimes in five minutes, all the above symptoms of poisoning disappeared, with a slight prostration of body which disappeared in fifteen or twenty minutes. In releasing the animal he was able to run about. In other dogs poisoned, without the remedy, rapid death resulted. These results, truly remarkable, have been publicly made by S. M. Don Pedro, who has done us the honor to assist in these experiments, as also by others of the Professional Faculty and by members of the Diplomatic Corps. I believe the permanganate of potassium to be a true antidote to the poison of serpents.—*Gazette Medicale de Paris.*

Diseases of the Isthmus of Panama.—Our intreprid confrere, Dr. Compagno, has already organized the different departments of his medical corps in the great enterprise. He writes that the sanitary condition of Panama is satisfactory, but the heat and humidity are insupportable from their continuity. Gastric and intermittent fevers prevail among the workmen. Epidemics pass, but intermittent fever continues without relaxation its work of disorganization. Marsh fevers arise from the water used as well as from miasmatic fevers.

[*Note by Translator.*—Having boated up the Chagres river and on mules, back over the Isthmus, as well as by railroad, and also by the Nicaragua isthmus, something may be said from my own experience as well as from the testimony of the steamer surgeons on the Atlantic and Pacific coasts.

The mortality among strangers on the Isthmus of Panama is appalling, and nearly all the employees on the Panama railroad died before their time of service expired. Very few returned, and of 10,000 to 15,000 men in Walker's Filibuster army, very few escaped from the deadly dysentery and Asiatic cholera of that region. The great undertaking of the French company at Panama will probably fail, and more from the deadly diseases of that climate than from the opposition of the United States Government. This great commercial enterprise ought to be above the objections of any people, as commerce is the great pacificator of nations, and lessens the chances for any one nation from predominant influences. A military democracy in the United States might need the combined powers of the whole of Europe to control and prevent propagandism, and this canal might be the means of averting such a catastrophe. A crusade against property and intelligence is more to be dreaded than one against automatic absolutism. The one has brains—the other none, but arms for destruction.]

Variola and Vaccine.—Dr. Adde Margras writes (in the *Journal D'Hygiene*, November 10th, 1881): As small-pox *kills* wherever it prevails, some preventive should be employed, and vaccination and revaccination become absolutely necessary. This has been proved by science, by experience, and by authority of clinics to be sufficient to stamp out the disease. The best age is three months, and spring time the best period of the year, to make primary vaccinations. The practice of vaccination guarantees preservation from small-pox, which is almost synonymous with death, while vaccination is synonymous with health, morality, instruction, competency, etc.

[Proves rather too much.—*Translator.*]

Hypodermic Injections for Anthrax.—℞. Phenic acid, 30grs.; Distilled water, 3pints. Mix. In a grave case of anthrax, in spite of large incisions, use the above in injections around the boil. In three days the swelling ceases and the cure is nearly complete.—*Ibid.*

Doses of Different Anæsthetics.—(Read before the Academy of Sciences, 14th November, 1881, by Dr. M. P. Bert—abbreviated.) If different anæsthetics be given with a sufficient quantity of air, the quantity becomes known and fixed; but if continued, the animal dies. The medium dose between the two is termed the maniable dose, which should never be exceeded. The dose of each anæsthetic used in experiments on mice, sparrows, dogs, etc., etc., are given, and the mortal

dose is generally double that of the legitimate or regular dose. With the following drugs the regular doses are as follows: Chloroform, 9 grammes; Bromide of ethyl, 22; Amylene, 30; Ether, 37; Chloride of methyl, 21—and the mortal or fatal doses, respectively, 19, 45, 55, 74 and 42 grammes.—*Journal de Therapeutique*, Dec. 10, 1881.

Calomel and Corrosive Sublimate.—The doubt has often been expressed that calomel in the human organization was made the subject of decomposition into corrosive sublimate. The recent experiments of M. P. Hoghar prove definitely that calomel changes slowly in the body under the influence of water and of temperature, into corrosive sublimate, and that the change is accelerated by the presence of nitric acid, chloride of sodium (common salt), and of sugar.—*Les Mondes.*

Analyses, Selections, etc.

(By Jacob Michaux, M. D., Richmond, Va.)

Electricity for Pain.—Dr. A. M. Rosebrugh, Surgeon to the Toronto Eye and Ear Dispensary, in the December, 1881, number of the *Canada Lancet*, says: "According to Dr. Anstie, 'the constant current is a remedy for neuralgia, unapproached in power by any other, except blistering and hypodermics of morphia, and the latter is often surpassed by it in the permanence of its effect, while it is applicable in not a few cases where blistering would be useless.' Dr. Bartholow says: 'There is no fact more certain than the power of galvanism to relieve pain.' Drs. Beard and Rockwell, while admitting that true neuralgia is most successfully treated by galvanism, claim that 'hysterical neuralgia and so-called pseudo-neuralgia, which are simply forms of pain, occupying certain areas, and running seemingly in the direction of certain nerves, *yield most readily to faradism.*' They claim also that the effect of *pressure* is a useful guide in selecting the proper current—that in the majority of cases where firm pressure over the affected nerve aggravates the pain, the galvanic current is indicated, and that in cases where firm pressure does not increase the pain, the faradic current is indicated. The faradic current is also most efficacious in certain forms of headache.

When the galvanic current is used in ordinary cases of neuralgia, a battery of twelve or eighteen cells is used; but in rebellious cases of sciatica and lumbago, from forty to

sixty cells are sometimes required. The electrodes should be large and well wetted, but not with salt water. The applications are made daily, twice a day, and in some cases three times a day, according to the severity of the case.

Dowell's Radical Cure of Hernia —Dr. Oscar H. Allis, Surgeon to the Presbyterian Hospital, Philadelphia, in the *Annals of Anatomy and Surgery*, December, 1881, criticizing the above operation, says that the results from it are not lasting. Whether the bowel descends through the same channel or not it does descend again. This, however, he attributes more to the neglect of proper after treatment than to any imperfection of the operation itself. He says that he considers it of the utmost importance to maintain the recumbent position for a considerable time after the operation and to supplement the cure with a truss.

Dr. Allis admits the safety of the operation (not a death in over a hundred cases), and that it is very simple and accomplishes all that can be expected of operative measures. He suggests the use of a needle with one eye only, and that one eye in the middle, armed with a double ligature with the two ends even on one side of the needle and the loop on the other to facilitate the management of the wire after the needle is laid aside. The single eye in the needle is said to be equally as useful as the two eyes in the ends, and the operator is less apt with it to pull the needle too far out in getting at the eye in the terminal end.

"Prof. Dowell," continues Dr. Allis, "used his needle in the ligation of varicose veins in a way singularly ingenious and really too good to be lost. Over a distended vein, he made a dot with a pencil, and then drawing upon the skin he removed the dot to the side of the vein. He now punctured this dot in the skin, and into the puncture inserted his needle, which he carried beneath the vein, making the counter-puncture at any convenient point. He now withdrew the needle until its terminal point had escaped the vein, when he reversed its direction, bringing it out at the point of entrance."

Dr. Allis thus describes his (Dr. Allis') use of the needle in varicocele: "The spermatic duct is first isolated, the needle passed below it, the ligature withdrawn and tied loosely. The needle is again withdrawn until its point is within the scrotum, threaded with a second ligature carried *in front of the veins*, and made to escape at a point behind the veins. One end of the ligature is now drawn from the eye

of the needle. Withdrawing the needle until its point is above the veins, it is threaded with the remaining end of the ligature and carried *behind the veins*, where the ligature is withdrawn and the needle removed. It will now be seen that the duct and veins can be widely separated and held so until every one present is satisfied with the operation. The veins are now ligated and the duct set free."

Large Doses of Iodide of Potassium in the Late Lesions of Syphilis.—M. H. Henry, M. A., M. D., of New York city, believes that the claim that one drachm of the iodide of potassium per diem will do all that this salt is capable of is false. He cites an interesting case which he treated nearly ten years ago, and which still continues well to show the efficacy as well as harmlessness of this method of administering it. This case was that of a gentleman of 25, in good condition, who contracted the disease in 1868. He was treated with small doses of mercury for a short time by some physician, who then assured him he was well. Three months later he applied to Dr. Henry with severe secondary symptoms—"severe pustular syphilides and sore throat." He was put upon a mercurial course and topical applications to the throat, which soon improved his condition so much that he went abroad, but returned two years later (1870) with serious brain symptoms—"mental incoherence"—and was suffering from congestion of the brain and a generally disturbed circulation. He fell into a state of restless stupor, with hot skin, quick, weak pulse, injected conjunctiva, widely dilated pupils, not readily answering to light, and he was very deaf. These symptoms were noted by Dr. Menjon and Dr. George Burrows, of London; but these gentlemen knew nothing of the history of the case, and attributed the symptoms to sunstroke, and he was treated from June 6th to July 7th "with calomel purges, mustard poultices, and blisters applied to the nape of the neck, morphia or hydrate of chloral at bedtime, the syrup of the hypophosphites of iron, and liquor strychniæ three times a day." No improvement. Dr. Burrows thought that the brain was extensively disorganized. Dr. Henry sent them the history of the case, which reached them at this time, and small doses of the iodide of potassium were given without improvement. He then returned to New York in an almost paralyzed condition, without ability to recognize Dr. Henry, whom he had known well. He had mydriasis of both eyes and ptosis of the right lid; also paralysis of the oculo-motoris nerve, incontinence of urine

and fæces. On *September* 4*th* ordered liberal diet, some wine, thirty grains iodide of potassium, three times daily, thirty grains bromide of potassium at night, great care of person and wants. No change in the next two days. *Sept.* 6*th*.—Four thirty-grain doses of potassium iodide were ordered; some improvement. *Sept.* 9*th*.—Dr. W. H. Van Buren consulted. Increased the iodide of potassium to five thirty-grain doses daily. *Sept.* 11*th*.—Left off the potassium bromide and added another dose of iodide—180 grains in six doses, daily. *Sept.* 12*th*.—Indigestion supervening; pepsin and bismuth, $\overline{aa}$ grains v, were ordered before each meal. *Sept.* 13*th*.—Much better. *Sept.* 14*th*.—Increased the iodide by one more thirty-grain dose—250 grains daily. *Sept.* 17*th* Better. *Sept.* 20*th*.—Another thirty-grain dose was added—280 grains daily. *Sept.* 21*st*.—Went out to ride. *Oct.* 3*d*.—Increased the iodide to 300 grains daily, as it was well borne. Vision still bad, but better. Great general improvement resulted, and on *Nov.* 4*th* the patient called at the office of Dr. Henry. In the early part of January 1871, took very little of the iodide, and in February, he discontinued its use entirely. In March, he was quite well, but "his sight was still imperfect." "Walks to his father's office (three miles) every morning and returns in the evening without fatigue.

In the case of dementia and hemiplegia, the patient took 300 grains of the iodide of potassium, daily, for more than eight weeks, during which time there was a steady improvement in flesh and subsidence of the syphilitic symptoms. Dr. Henry advises, in cases where nausea is caused, a little compound tincture of bark or an infusion of columbo. Wine of pepsin and lactopeptine are also valuable adjuncts. Dr. Henry considers the drug entirely harmless when thus used.—*Med. Record*, Dec., 1881.

[Dr. Geo. Ben. Johnston, of this city, who has had a similar experience with large doses of iodide, advises the use of tincture of gentian for the relief of the nausea sometimes occasioned by potassium iodide, and concurs with Dr. Henry in the belief that it is of importance to give each dose in a full glass of water. Dr. Johnston also advises the medicine to be taken during or just after a meal, with a view to protecting the coat of the stomach.—M.]

Sexual Abuse in Females.—Dr. Wm. Dayton, of New York city, in an article on the above subject, makes the following statements, which are of interest physiologically:

"The first is a case of Dr. Beck's, quoted in Flint's *Physi-*

ology, p. 890. The patient was a very erethistic female, and was under treatment for uterine prolapse. Dr. Beck 'swept the right forefinger across the cervix twice or three times, when almost immediately orgasm occurred. The os opened to the extent of fully an inch, made five or six successive gasps, drawing the external os into the cervix each time powerfully, and at the same time becoming quite soft to the touch. All these phenomena occurred within the space of twelve seconds' time certainly, and in an instant all was as before—the os had closed, the cervix hardened, and the relation of the parts had become as before the orgasm' The woman was positive that the sensations produced were the same in quality as they were during coition."

"The second case occurred in the hospital practice of Dr. Paul F. Mundé. A Swedish woman, aged 26, while undergoing an examination, was accidentally touched on the cervix with a uterine probe. She immediately became excited, when Dr. Mundé repeated the cervical friction, at the same time commanding her to 'keep still.' Intense sexual excitement was betrayed in an unmistakable way, and the cervix contracted at each touch of the sound, but her sudden rising with the speculum *in situ*, prevented further study."

Another case is mentioned, in which cervical contractions were excited by digital examination.—*Medical Record*, Dec., 1881.

Ergot for Lead Poisoning.—After long experience with this disease, in which (1) iodide of potassium alone; (2) electricity with tonics and nux vomica; (3) iodide of potassium and ergot have been fully tried, the conclusion was reached that the last was by far the most efficacious, usually enabling the patients to resume work in the mines in a month, whilst they were generally disabled for three months when treated without the ergot, though when the attack is a mild one, sulphate of magnesia followed by iodide of potassium usually relieves in a few days. The combination used is this:

℞ Potassii iodidi.....ʒij
Ext. ergotæ fluidi.....ʒj
Ext. nucis vomicæ fluidi.....ʒj
Tr. cardamoni comp.....ʒj
Syrupi q. s. ad.....ʒiv

M. Sig.—Take a tablespoonful night and morning.—Dr. J. A. Stiles, *Therapeutic Gazette*, Oct., 1881.

Treatment of Gonorrhœa.—Mr. W. Watson Cheyne, Asst.

Surg. King's Coll. Hosp., in *British Med. Journal*, states that a bougie composed of five grains of iodoform, ten minims of oil of eucalyptus, and eighty-five grains cocoa butter passed into the urethra and secured by pad and strap at the meatus, allowed to dissolve and followed by an injection of boracic acid solution ("saturated aqueous solution of boracic acid") or an emulsion of eucalyptus oil "(one ounce of eucalyptus oil, one ounce of gum acacia, water to 40 or 20 ounces) to be used for two or three days," will effect a cure in ten days.—*Canada Med. Record*, Oct., 1881.

Treatment of Night-Sweats of Phthisis.—(From *Walsh's Retrospect*, Oct., 1881.) Before discussing the various internal remedial agents used in the alleviation of this distressing symptom, some useful instructions are given in regard to clothing and bed-clothing, neither of which, the writer insists, should be oppressively heavy. The patient should take a daily sponge-bath with some slightly astringent solution, viz.: a weak solution of alum or rock-salt. Whiskey or alcohol is sometimes useful, or either of these with quinia dissolved in it; water, to which a small quantity of aqua ammonia has been added, is likewise recommended. A vigorous rubbing, sufficient to produce a glow on the skin, is to follow the use of any of the above substances. "You will find in some persons very hot water checks the excessive sweating, but in the majority moderate friction, following astringent washes, is better."

Some of the internal remedies (for many experiments with and observations on many of these, the world is indebted to Dr. William Murrell) are given with the methods of using and observations on them.

Muscarine stops the sweating on the second or third night, and does not cause abnormal dryness of the skin. Give it in three doses at intervals of an hour—in doses not less than five minims of a one-per-cent. solution of a liquid extract.

Picrotoxine generally produces no effect the first night. Give it only at bed-time—one-sixtieth of a grain in pill, or in solution with a little glacial acetic acid.

"*Nitrite of amyl*, a good, though not a very certain or pleasant agent. Dose from one to three minims." [Method of administration not stated.—J. M.]

Jaborandi and its alkaloid *pilocarpin*. Dr. John M. Keating uses "small quantities" of the infusion of jaborandi, and finds it acts "extremely well." He attributes its favorable action to its power of contracting the capillaries. "Dr.

William Murrell, whom I have already quoted, has administered it or pilocarpin in thirty-three cases, in all stages of the disease. Of pilocarpin, the dose employed was generally one-twentieth of a grain, either at bed-time or three or four times daily. It acts somewhat slowly, but is said to be very efficacious, and even to lead to permanent results. I confess that I have not formed so high an estimate of it."

Salicylic acid sometimes has a good influence internally administered. Köhnhorn recommends dusting "the entire surface of the body" with a powder thus compounded—of salicylic acid, three parts; of starch ten, and of talc earth, eighty-seven parts. This agent has not yet, however, been sufficiently tested.

Physostigma, in doses of two minims, repeated once or twice in the evening or four minims, given at once, of the fluid extract generally controlled the sweating in an hour, and often prevented it when given before it began—at the same time raising the temperature, bringing down the pulse and respirations. But in only one instance was the effect at all permanent. The strength of the fluid extract used was "one of the bean to a minim of the fluid."

Dover's powder in from two- to ten grain doses at bed-time has often a good effect.

Atropia has the most powerful effect of anything yet tried, but even in doses of one-eightieth of a grain makes the mouth and fauces so dry that it often prevents sleep and excites coughing.

Duboisia acts almost exactly similarly, and has the same objections.

"Not to detain you too long, I will speak particularly of strychnia, calabar bean and jaborandi, added to belladonna or atropia. With reference to *strychnia*, it is in many respects not antagonistic to *belladonna*; one, indeed, may promote the activity of the other; and I was led to hope all the more from a combination being effective with a smaller dose of the belladonna or atropia, and was induced to persevere with my observations after reading Lauder Brunton's remarks on the unaided action of strychnia in the night-sweating of phthisis. But this expectation has been only partially realized. The atropria preponderates, and even in decreased doses dries the throat.

Calabar bean and jaborandi in combination with atropia give better results, calabar being an antagonist, in most respects, of atropia, according to Fraser, Bartholow and others. "It leads to an increased flow of saliva, and is said to increase

the perspiration. But it certainly does not do so in phthisis, whatever be the explanation; and if you add grain one-eighth to grain ——— (?) [here there is an accidental blank.—J. M.] of the solid extract or two to three minims of the fluid, to one-eightieth or one-sixtieth of atropia, you preserve or heighten the good effect of the latter and lessen its evil ones. Still better, I find, is jaborandi." This is completely antagonistic to atropia, and though in health it produces the most active discharge from the skin, its power (given in small doses) to arrest morbid sweating is fully demonstrated. Added in small doses to atropia, "say ten to fifteen drops of the ordinary fluid extract to one-sixtieth of a grain, or, as I have often done, a dose of this quantity given two hours in advance of the atropia, and repeated with it, the sweats will be as well influenced, while the discomfort arising from the dryness of the mouth will be greatly diminished. The effect is undoubted and its power is not confined to the night perspirations of phthisis."

Ergotine.—It being difficult to hit always upon the proper doses of the jaborandi and atropia, ergotine was tried. Two grains, three or four times daily, will almost always control the sweating by the second night. "The remedy may then be continued and gradually abandoned; it produces no annoyance or discomfort whatever, and its good effects persist after it is withdrawn. It will fail or lose its effect, as every other remedy will, in the treatment of such an unrelenting disease, but the proportion of failures is small compared with that of the successes."—Dr. J. M. Da Costa, Prof. Practice of Med. & Clin. Med. Jeff. Med Coll., Philadelphia, Pa., etc.

To Prevent Pitting after Small-pox.—We clip the following from *Martin's Chemists' and Druggists' Bullectin* (Oct., 1881):

℞ Carbolic acid.....ʒj to ʒiiss
Olive oil.....ʒij
Prepared chalk.....ʒij

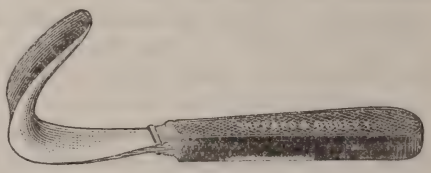
M. Apply to the face by means of a linen mask, having openings for the eyes, nose and mouth. Suppuration is less in duration and intensity than upon portions of the body left uncovered; where the stage of suppuration begins on the thirteenth to the fifteenth day, upon the face it occurs on the ninth to the eleventh day. The mask is generally removed when desiccation commences. Schwienmer, in *L'Union Méd. du Canada.—American Medical Journal.*

[I have been informed by Dr. Bryant, of this city, that, in

two cases treated recently by him, the sites of the blisters, when this mixture was applied just before the appearance of the eruption, were free from eruption. He stated that he intended to make some experiments on the subject.—J. M.]

New Speculum.—Dr. Robert Battey, of Rome, Ga, contributes a description of a new speculum to the *New England Medical Monthly*, February, 1882: This instrument is a modification of Sims' original duck-bill speculum. The blade has been shortened, flattened and set to an angle with the shaft of forty-five instead of ninety degrees. It was designed especially for use in Battey's operation and the vaginal ovariotomy of Thomas, but experience has demonstrated its superiority in all operations to which the Sims' instrument is applicable. The blade being shortened, permits the uterus to be drawn downward, and exposes well the posterior vaginal pouch. Being flattened, the vulvar opening is increased and room for manipulation gained. The acute angle of the blade and shaft *compels* the point of the instrument to keep its proper place well back in the hollow of the sacrum, and out of the way of the operator—a most valuable feature. Simple traction in the direction of the shaft is all that is required to keep the blade in position. When the traction is made by a bit of rubber tubing attached to the handle, and armed with a double hook to be engaged in the clothing of the patient, the instrument is completely self-retaining.

The accompanying cut renders further description unnecessary. The speculum has been well made by Messrs. Shepard & Dudley, of New York.



The Antiquity of Earth-to-Earth Burial.—Possibly many persons might not be aware that the system of earth-to-earth burial, introduced by Mr. Seymour Haden, and eloquently advocated by him in a series of letters to the *Times*, is by no means new-fangled, but can be traced to a remote antiquity. It appears, from the highest authorities, that the bodies of the early Christians which were laid in the catacombs of Rome had been committed to their final resting-place without coffins. "With the same feeling of reverence that pervaded the whole rite," observes one of the authors of *Christian Antiquities*, "the bodies of the faithful were not buried naked,

but wrapped in linen cloths, 'as the manner of the Jews is to bury.' Sometimes the body was enveloped in a sheet; sometimes swathed in many lengths of bands, in the same fashion as Lazarus is represented in the early Christian pictures and bas-reliefs. Bosio assures us that, in excavating the foundations for St. Peter's, he found instances of both modes. He mentions that bodies were exhumed bound with linen bands, and that he himself had seen very many wrapt in linen sheets of exceeding fineness, which fell to dust at the touch." Although the coffin was occasionally used by the Hebrews, it was mostly, if not always, made open at the top. Even in England, it was customary to wrap the dead in a woolen covering, and carry them to the grave on biers. In Palestine, according to Dr. Van Dyck, coffins are only used in the cities—a custom of but comparatively recent date, the ordinary mode of burial being to array the corpse in its best dress, and lay it on a bier with a cloak thrown over the body, leaving the face exposed. The inhabitants of Berût carry their dead to the grave on a bier, and only occasionally put the body into a lightly constructed coffin at the grave. Dr. Erasmus Darwin, in his *Phytologia*, and Francis Osborn, in his *Advice to a Son*, commend the natural committal of the dead to the earth, with no artificial obstacle between either, so that Nature's process may be duly accomplished without danger to the living, or defrauding the soil of its essential right. Osborn, the brother of the first Duke of Leeds, and who wrote about the middle of the seventeenth century, counsels his son thus: "Be not solicitious after *Pompe* at my *Burial*, nor use any expensive *funerall Ceremony;* by which *Mourners*, like *Crowes*, *devoure the Living, under pretence of honouring a dead Carcase:* Neither can I apprehend a *Tomb-stone* to adde so great a *weight of glory* to the dead, as it doth of Charge and trouble to the Living. *None* being so *impertinent* wasters, in my opinion, *as those that Build Houses for the Dead:* He that lies under the Herse of Heaven is convertible into sweet herbs and flowers, that may rest in such bosoms as would shreek at the ugly bugs, may possibly be found crawling in the Magnificent Tombe of *Henry* the Seventh."—*British Medical Journal.*

Frothing Urine.—Dr. Southey, in his valuable Lumleian lectures on Bright's disease, has quoted the aphorism of Hippocrates, to the effect that "bubbles maintained upon the top of the urine signify a disease of the reins, and likewise its long continuance," a fact, Dr. Southey remarks, which re-

mained "unimportant until the end of the last century, when it was ascertained that albuminous urine held a froth of bubbles on its surface." That the persistent presence of air bubbles on the surface of urine may be noted in most cases of albuminuria is undoubted; but, since the same condition occurs in a variety of other cases, it cannot be relied on as a test of the presence of albumen in urine; and, when so interpreted, it will in many cases prove misleading, and give rise to unnecessary alarm. I have frequently met with urines which have retained a froth on their surface, from the moment of being passed for twelve and even twenty-four hours, and which have not contained a trace of albumen. I have at the present time two cases under my care in this town (San Remo); the one of diabetes, and the other of dyspepsia. The froth in the diabetic case is certainly not due to decomposition of the sugar, since the froth forms upon it immediately it is voided; while the only noticeable features in the second case are, that the urine contains an excess of earthy phosphates, and its acidity is beyond the normal standard. I believe that the ocurrence of retained and persistent air-bubbles on the surface of urine is always of pathological significance; and that their presence, when rightly understood, is capable of affording valuable practical information, although, so far as I am aware, the subject has not hitherto been followed out with the requisite care and minuteness. In some cases the frothing appears to be connected with the high density of the urine; in others, with its feeble acidity or alkalinity; and again, in others, with an excess of mucous.—*Arthur Hill Hassall, M. D., in the British Medical Journal.*

Bad Effects of Quinine.—Dr. Marion Sims, in some comments on a paper published in the New York *Medical Gazette* of October 22d, refers to the fact that as early as 1847 Dr. W. O. Baldwin, of Montgomery, Alabama, had detailed several cases in which severe symptoms followed the administration of quinine. One of particular interest is that of a lady who received eighty grains in a few hours for an attack of pernicious intermittent fever; of this she was relieved, but the next day was blind, and has remained so to the present moment, a period of thirty-five years. In the accompanying article of Dr. Baldwin, several cases of death attributed by him to the use of large doses of the drug are related, and experiments on dogs illustrating its toxic properties cited. Dr. Baldwin found, chiefly, a remarkable increase in fre-

quency of the pulse, dyspnœa, maximal pupillary dilatation, convulsions, and, in one case, furious delirium, the dog biting and barking at everything about him. His observation that the effect of quinine is proportionately far greater on puppies than on grown dogs, is in harmony with the known fact that relatively small doses may prove fatal to children.—*Amer. Jour. Neurol. Psychiatry*, Feb., 1882.

Mercurial Fumigations in Diphtheria.—(By J. Corbin, M. D., *N. Y. Med. Abstract*, Sept., 1881.) Laryngeal diphtheria proves fatal in almost every case unless tracheotomy be performed. Such is the language of Dr. A. Jocobi. Dr. Corbin in this paper speaks only of the laryngeal form of the disease. He cites several cases which yielded rapidly and completely to the mercurial vapor. He used in one or two instances the black oxide, but afterwards in other cases used the mild chloride, and was more pleased with it than the former.

His method may be briefly summarized as follows: He takes a cane-seated chair for large children—a crib for younger ones; over these a woolen blanket can easily be spread. Then take a tin alcohol-lamp with three arms to support a piece of tin, on which to place the mercury, and place it under the chair or crib; and, in the course of fifteen minutes, which is long enough for one sitting, the evaporation will be nearly or quite complete. The amount used in urgent cases was ℥ss every two hours. No depression, salivation, diarrhœa, or any other unpleasant symptom followed. It is not unpleasant and does not irritate the air passages. One-half drachm was the dose whether the black oxide or the mild chloride was used. The fumigations were not continued longer than necessary to control the disease. Dr. Corbin thinks this treatment should be confined to the sthenic cases. He has only used it in such. He used no other treatment except stimulants and nutritious diet. The length of time this treatment was continued was from one to three days.—*Proceed. Med. Soc. Co. Kings*, Aug., 1881.

Teno-Suture.—The patient, a boy æt. ten years, had his tendo Achillis divided by an accident. The upper end retracted about two inches. This was brought down after some difficulty by means of a tenaculum, and the ends held in position by means of two silver-wire sutures—one anteroposteriorly, the other laterally. No anæsthetic was used. The foot was fully extended upon the leg and the leg fully

flexed upon the thigh. The limb was fixed in this position by bandages. Three weeks later both sutures were removed, one having been run through the other like links of a chain. The cure was soon complete, and the stiffness of the knee and contraction of the muscles of the calf soon disappeared when the patient began to use the limb.—Dr. Wm. Wallace in *Pittsburgh Med. Journal*, Oct., 1881.

Chloral Hydrate in Asthma.—(*N. Y. Med. Abstract*). The writer cites a number of cases in which he used full doses of chloral hydrate. In most of these there was benefit, substantial and lasting; in a few, cures followed, and in some there appeared to be no benefit. One drachm was used for adults and smaller doses for children, gradually diminished till small quantities were taken three times daily—say five grains for adults—and finally it was dropped altogether or till the recurrence of the disease. Three varieties of the malady are spoken of, but the writer does not state to which of them (cardiac, bronchitic or dyspeptic) he considers the remedy the most applicable. "Four cases, from three to ten years of age, treated by from six to twelve grains, have been completely relieved from any further attacks."—Dr. G. L. Mackelcan, *Canada Lancet*, Aug.

[Is there not too much danger, in this method, of establishing the chloral habit, or of the fatal results which sometimes unaccountably follow the use of this drug?—J. M.]

Injuries to the Head, followed by lesions of the spinal cord, cerebral symptoms being either very slight or entirely wanting.—Under this caption Dr. L. Putzel, Neurologist to Randall's Island Hospital, reports two cases in *Medical Record*, October, 1881—one of a man struck on the top of the head, and the other falling from a masthead to the deck of a vessel. The general outlines of these cases are very similar, and show very few cerebral symptoms and a prominence of the spinal ones. We think the explanation lies in the fact that the force was transmitted through the cranium and produced lesions in the spine. This transmission of force is frequently noticed where a fall upon the buttucks produces fracture of the base of the skull.

A Scientific Smuggler.—The Berlin *Montagsblatt* tells this story: In 1805 Humboldt and Guy-Lussac were in Paris, engaged in experiments on the compression of air. The two scientists found themselves in need of a large number

of glass tubes. These were exceedingly dear in France at the time, and the rate of import was something alarming. Humboldt sent to Germany for the needed articles, and gave directions that the manufacturer should seal up the tubes at both ends, and put a label upon each tube with the words *Deutsche Luft* ("German air"). The air of Germany was an article upon which there was no duty, and the tubes were passed by the custom officers without any demand, and arrived free of duty in the hands of the two experimenters.

Inoculation of Animals with Venereal Matter.—The *Lyon Médical* reports that Dr. Rebatel and associates have recently made many experiments on dogs, rabbits and guinea-pigs, with a reference to ascertaining if these animals were susceptible to any of the venereal diseases of mankind. After many and careful experiments, they could find that no symptoms of infection followed. These experiments have been made before by not less scientific and careful physicians with corresponding results.

M. Pasteur's Vaccinations.—According to the *British Medical Record*, statistics brought up to November 1, show that inoculations of splenic fever, according to Pasteur's method, were performed on 160 flocks, comprising 68,900 sheep, of which 33,576 were vaccinated and 29,938 left uninoculated, so as to judge the results of the difference of treatment. Before vaccination, the losses caused by splenic fever amounted, in the whole of the flocks, to 2,986 animals. During vaccination, and until its effects were perfected, 260 sheep out of whole number of 33,576, perished. During the same period the mortality rose to 366 out of the group of 21,938 which were not vaccinated. When the effects of vaccination were complete in the first group, the mortality from splenic fever fell to five. This rate has persisted up to the present time, and the next statistical account will give, it is expected, the same satisfactory results as regards the group of animals vaccinated and left unvaccinated.

Boards of Health.—The profession in Wisconsin are trying to establish *local* boards of health throughout the State. A bill looking to this end is before the legislature.

Illinois.—The State Board of Health of Illinois has decided not to recognize diplomas from the College of Physicians and Surgeons at St. Joseph, Missouri.—*N. E. Monthly.*

American Diplomas in Australia.—The Department of State has received an official communication from Adelaide, South Australia, from which it appears that an amendment has recently been effected in the medical laws of that colony, whereby the holders of foreign diplomas are entitled to be registered as duly qualified medical practitioners. The Department of State has accordingly been asked to furnish a list of all the schools of medicine in this country which issue diplomas, or certificates of sufficient value to entitle their possessors to practice medicine in all its branches, and to hold government medical appointments. The necessary steps have been taken by our government to furnish this information, which will remove all obstacles in the way of American graduates practicing medicine in South Australia.—*Medical and Surgical Reporter.*

Syphilis on the Fingers of Doctors.—Dr. Fessenden N. Otis, Clinical Professor of Diseases of the Genito-Urinary System, in College of Physicians and Surgeons, New York city, in the March number, 1882, of the *Independent Practitioner*, of New York, reports eight cases in which syphilis occurred on the fingers of medical men. Of course such afflictions come only through *attention to business.* But there is this word or two of caution that all practitioners, of more or less experience than ourselves, should remember: First. Be careful not to examine a venereal patient, with an open venereal sore, when the medical examiner has an open sore, of an *innocent* character, on the hand or fingers with which the examination is to be made. Secondly. Under all circumstances, after examining a venereal patient, be sure that the hands of the *Doctor*, at least, are washed. Such remarks as we make here, of course, sound as platitudes; but even if they are such, it is still well to be *re*minded of dangers to which they are frequently exposed.

Book Notices, &c.

Antiseptic Surgery.—By DR. JUST LUCAS CHAMPIONNIÈRE, Surgeon to the Hôpital Tenon, etc. Translated from the Second and Completely Revised Edition, with the Special Sanction of the Author, and Edited by FREDERIC HENRY GERRISH, A. M., M. D., Surgeon to the Maine General Hospital, Professor of Materia Medica and Therapeutics in Bowdoin College, etc. Portland: Loring, Short & Harmon. 1881. 8vo., Pp., 239. Cloth. Price, $2.25. (By mail from Publishers.)

This book undertakes to give "the principles, modes of

application, and results of the Lister Dressing." We agree partially in the statement that "No one who has to treat wounds can afford to be without a knowledge of this modern system, which will enable him to restore his patients with the utmost rapidity, safety, and comfort." Certainly as a complete *exposé* of the views held until recently by the illustrious Lister, this is the best of American publications. But while we recognize, with the rest of the world of medical men, the pre-eminence of Championnière as a bold and practised surgeon, why should our translator have gone to France to seek an exponent of the views of an Englishman, which views have been thoroughly tested and reported on by his own countrymen, as well as by Germans, Americans and others? We would have appreciated the book the more had the translator (who manifests great familiarity with the subject, both as a practitioner and as a literary man) compiled a book on the subject from the many sources at his command, and thus have honored America with authorship which now our translator gives to France. We make this suggestion in no offensive spirit to Frenchmen, for we appreciate their many valuable contributions to the medical sciences; but, as we see, upon a careful reading of this translation of Championnière's work, that it is only a rehash of statements already familiar to the profession generally—made known by the medical journals of the country—we think this translation not necessary at this time, especially as it does not include many of the more recent observations of the surgeons of the day. Even Lister himself has modified his former views. The numerous experiences of surgeons all over *this* country at least, and nowhere more faithfully reported than by the surgeons of the South (who seem peculiarly prone to assert their experience, and to adopt, without just cause, on account of a native modesty which is damaging, the views of those who live in the North and in foreign countries,) show conclusively, that "Listerism" as at first advocated by Lister himself, and afterwards pushed too far by enthusiasts, is not altogether needed. By this general criticism of the book before us, we would not be understood as undertaking to detract, in any particular, from the eminent service Prof. Lister has rendered; but he has gone too far, and this much he acknowledges himself. The value of antiseptics is yet not denied; but we venture to assert, from our readings on the subject and from observations, that simply the dipping of the hands of the surgeon and of the assistants who have to assist in operations upon the *viscera*, as well as the dipping

of the instruments, sponges, etc., in carbolated, thymolized or other antiseptic solution, will be found to be the proper practice—leaving off the spray and the other minutiæ of "Listerism" as heretofore detailed in surgical works. Free ventilation of rooms or wards in which the patients have afterwards to be placed, not heated by furnaces, nor hot air, nor steam pipes, but by open fireplaces, non-occupance of rooms that have once been infected by infectious diseases—such as gangrene erysipelas, etc.—the performance of operations during seasons and in sections of country where there is not too great cold nor heat, too damp nor dry—unless during an ordinarily dry and moderately cold Winter season, these hygienic surroundings will greatly lessen the mortality that now comes from surgical operations as regards visceral organs. There can be no denial of the facts by those who carefully study the statistics of results of surgical operations—*even when performed by experienced country surgeons* of the South, especially in Virginia, North Carolina, Tennessee, and this belt of country generally—that they are better than those reported by the more experienced surgeons of the larger cities of the North and of Europe.

The subject of this book is enticing, but we will not go into a further review. We will simply add that the book gives a fair statement of the views and practice of Prof. Lister until he announced a determination to modify both during the last meeting of the British Medical Association.

Treatise on Diseases of the Eye. By HENRY D. NOYES, A. M., M. D., Professor of Ophthalmology and Otology, Bellevue Hospital Medical College, etc. New York. Wm. Wood & Co. 1881. 8vo. Pp. 312—xii. Cloth. Price, $1.50. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is "No. 12" of the Monthly Series for 1881, of "Wood's Library of Standard Medical Authors;" and with this introduction, it is needless to say who Dr. Noyes is. He must be known to all our readers, as he is ranked among the three or four "*standard authors*" of America on the subject of which this volume treats. He states that he has "attempted to condense into the limits assigned to him the substance of modern ophthalmic knowledge;" and he has done his work well. His "standpoint is clinical, and the purpose is practical." We have had so many occasions to commend the excellent selections of authors for this serial "Library of Standard Medical Authors" issued by the publishers, that we need not say more on this point in reference to this special selection of author. As to the book itself, it is an excellent one, either for the specialist or general practitioner.

Text-Book of Physiology. By M. FOSTER, M. A., M. D., F. R. S., Prælector in Physiology and Fellow of Trinity College, Cambridge. Second American, from the Third and Revised English Edition. With Extensive Notes and Additions, by EDWARD T. REICHERT, M. D., Demonstrator of Experimental Therapeutics, University of Pennsylvania, etc. With 259 Illustrations. Philadelphia. Henry C. Lea's Son & Co. 1881. 12mo. Pp. 998. Sheep. (For sale by Messrs. West, Johnston & Co., Richmond.)

The American edition of this work is a great improvement over the original English publication, which is wanting in sufficient physiologico-anatomical details. The American editor has supplied these deficiencies in great part, and now presents the work to the profession in a much more valuable form than Dr. Foster himself permitted it to be published. The work has already become a standard authority on physiological matters, and has rightly been adopted as the *text-book* in several of the colleges, and as a reference book in some other colleges. It would be doing injustice both to the author and to ourselves to undertake a review of it, within the limits of the few lines at our disposal for any book-notice in this issue—already overcrowded with book-notices. Many of the profession of this country are acquainted with the former edition. Let it suffice to add that the most important changes in the present edition occur in the section or chapter on muscle and nerve. The American edition omits nothing that is contained in the English text; so that the purchaser of the work before us, not only gets all that Dr. Foster has said, but also secures the benefit of Dr. Reichert's carefully-prepared additions, which are numerous and important.

Essentials of the Principles and Practice of Medicine—A Hand-Book for Students and Practitioners. By HENRY HARTSHORNE, A. M., M. D., Editor of American Edition of "Reynold's System of Medicine," etc. Fifth Edition, Thoroughly Revised and Improved, with 144 Illustrations. Philadelphia. Henry C. Lea's Son & Co. 1881. 12mo. Pp. 669. (For sale by Messrs. West, Johnston & Co., Richmond.)

For many years this book of "Essentials" has been a favorite with college students, in their attendance upon lectures as well as in their preparation for examinations. The chief, of the many, additions to the former editions which we find in the present volume, relate to matters pertaining to the nervous system. The metrical plan of prescribing is also, for the first time in the history of this work, brought out. A chapter on eyesight, in general, has been included in this revision. As the title indicates, this book is one sim-

ply on the "*essentials* of the principles and practice of medicine;" it is almost a "larger dictionary" on this branch of medical science—it is so complete as to the number of diseases and affections considered, while the main points relating to each one is briefly but definitely stated, both as to diagnosis and treatment. But as almost the entire profession of this country, at least, is well acquainted with the former editions of "Hartshorne's Essentials," in making any further remarks regarding the present book, we feel as one who is introducing to familiar company an old friend who has simply changed his hat and suit of clothes to correspond with the custom of the day.

Anatomical Studies upon Brains of Criminals—a Contribution to Anthropology, Medicine, Jurisprudence and Psychology. By MORIZ BENEDIKT, Professor at Vienna. Translated from the German by E. P. FOWLER, M. D., of Department of Translation of New York Medico-Chirurgical Society. New York. Wm. Wood & Co. 1881. 8vo. Pp. 185. (For sale by Messrs. West, Johnston & Co., Richmond.)

We have read this book with an unusual degree of interest, in view of some cases of heinous criminality of recent date—one especially at this time of National regret. The brains of many criminals are represented by the "photo-engraving" process, and explained by detailed text-remarks. This is a book of rare interest to the scientific student of criminals, and may be the foundation stone upon which a special science of great good will ultimately be erected. It is a fact already established that criminals of all sorts have, *as a rule*, some peculiar and even repulsive expression of countenance or shape of head or features. A visit to any of the penitentiaries will confirm this statement. But there are yet many outside of such penal institutions whose appearance, in one way or another, would indicate that they are no better than those undergoing punishment for crimes in which they have been detected and brought to justice. If we are forced to give our conclusions from a reading of this book, we would state, first, that we cannot well tell the deformities of a criminal's brain until a *post-mortem* is had on him, and then we frequently cannot tell much; secondly, be careful of too great intimacy with a man with a misshapen head and a repulsive countenance; and, lastly, let the grossly criminal subject be hung or otherwise suffer severe punishment, and after his death examine his brain. Of course, we except from the first part of this last conclusion those who are plainly insane, and whose criminality can be easily ex-

plained on this manifest condition. Their ostensible crimes are due to disease, which disease should serve as their protection—so far as *punishment* is concerned. If we could have influence in other fields of science or of letters than medicine, we would persuade lawyers, anthropologists and general scientists to study this very interesting book which has been given to the world by an author of great renown.

Lectures on the Diagnosis and Treatment of Diseases of the Chest, Throat and Nasal Cavities. By E. FLETCHER INGALS, A. M., M. D., Lecturer on Diseases of the Chest and Physical Diagnosis and on Laryngology in the Post-Graduate Course, Rush Medical College, etc. With 135 Illustrations. New York. Wm. Wood & Co. 1881. 8vo. Pp. 437. (For sale by Messrs. West, Johnston & Co., Richmond.)

This is a valuable work on the subjects named in the title. The suggestions given as to the treatment of the diseases considered are all brief, but pointed, and are such as general experience approves. The excellence of the book consists in the directions given for differential diagnosis. The remarks intended for those who "limit their practice" to "specialties" are put in smaller type than the body of the work, thus enabling the *general* practitioner to understand, at a glance over the text, what is essential and non-essential to him. Both as to the matter and arrangement of the book, it must be of great service to the ordinary physician as well as to the specialist. The author is too well known as an expert in the line of study indicated by the title of his book to need any introduction to the profession at large. The merits of his contributions to medical literature are proven by the adoption of his views.

Homœopathy, What is it? By A. B. PALMER, M. D., LL. D., Professor of Pathology and Practice of Medicine in College of Medicine and Surgery in University of Michigan. Second Edition. Detroit. George S. Davis. 1881. 8vo. Pp. 109. (By mail from Publisher.)

This little book by Dr. Palmer, giving "a statement and review of its doctrines and practice," is sufficiently ample to intelligent minds, seeking the truth and desiring to establish a principle, to show the perfect absurdities of homœopathy, as a special class of medical practice. The hieroglyphics which homœopathic practitioners constantly use in making their prescriptions, instead of writing out—at least, for print—seem intended to confuse the reader, and throw the mantle of charity over the ignorance of the writer. For

the same reason that lawyers carefully study the doctrines of law as promulgated by the early writers; for the same reason that theologians of this day pay careful attention to the history of the church universal; for the same reason that engineers study the principles of engineering as advanced by writers of long ago, so ought we, as physicians of to-day, acquaint ourselves with the fallacies and truths of the medical sciences as heretofore advanced, in order that we may discard the former and approve or make advances on the latter. There are some semblances of truth as to facts in homœopathy, which Dr. Palmer herein states; but the conclusions from the great mass of facts, drawn by the leaders of the homœopathic approvers *in toto*, are so contracted in their character as not to justify scarcely any deduction which they make. Every regular practitioner of medicine should carefully read, study and remember the facts and inevitable conclusions which Dr. Palmer brings out in this little book, which gives a fair representation of the views of the exclusive Hahnemann school of practice. He reduces the arguments of the advocates of homœopathy to an *argumentum ad absurdem*.

Treatise on Diseases of Infancy and Childhood. By J. LEWIS SMITH, M. D., Clinical Professor of Diseases of Children in Bellevue Hospital Medical College, etc. Fifth Edition, Thoroughly Revised. With Illustrations. Philadelphia. Henry C. Lea's Son & Co. 1881. 8vo. Pp. 836. Half Russia. (For sale by Messrs. West, Johnston & Co., Richmond.)

Dr. Smith is so familiar to the medical profession, the world over, as an authority on diseases of children, that it would be damning him with faint praise to undertake to introduce him to our readers. There is no book published on the subjects of which this one treats that is its equal in value to the physician. No general practitioner can afford to do without it. Both as to the carefully recorded and extensive experience of the author, as also in regard to his attentive study of the older works on diseases of children as well as of current literature on the subjects of which he writes, there is no one his superior, if, indeed, he has a rival. Beyond clear descriptions of the diseases of childhood, including those of infancy, his brief discussions of the causes of such diseases, their pathology, etc., are so just in their conclusions that the most learned must, generally, give willing assent. But while he has said just enough to impart the information desired by general practitioners on such questions as etiology, pathology, prognosis, etc., he has devoted more attention to

the diagnosis and treatment of the ailments which he so accurately describes, and such information is exactly what is mostly wanted by the vast majority of "family physicians." So universally conceded is the value of this book that when a doctor goes into a family to attend a sick child, if he has but followed the advice given in Smith's "Diseases of Children," he feels, whatever may be the result of the case, that he has done all that could be done. We have twice before, in our editorial experience, had occasion to notice scarcely less favorably the two preceding editions of this work. We have only to add that the present fifth edition is an improvement on the former editions, as it is fuller in the range of subjects discussed, and is even more practical in its details. He acknowledges his indebtedness to Dr. O. D. Pomeroy, Surgeon to the Manhattan Eye and Ear Infirmary, for an article on "Strumous Ophthalmia."

It has been remarked by some one that Dr. Smith confines his remarks too much to the experience and observations of New York physicians. In reply to such a criticism, it should be remembered, in the first place, that there is no city in America, at least, where there are more infants and children upon whom to make observations; and, in the next place, the author himself has had far better opportunities for observing diseases there than elsewhere, as also for gaining much additional knowledge by personal conversations with other doctors, as well as by listening to discussions in the several Medical Societies of that city. Take these facts in connection with the general confession of practitioners in other cities and States, that his descriptions of infantile diseases, as to causes, symptoms, treatment, etc., correspond accurately, in the main, with their observations, what then follows? Simply this, that scarlet fever or other disease of children, whether it occurs in New York city or elsewhere, is still the same affection—even if a child residing in Florida has like symptoms as those witnessed in a child in New York. Dr. Smith's book has this special excellence: That it records but little, as regards the description and treatment of diseases of children, which he is not able, personally, to verify from his observation or else from a proper confidence in the assertions of his informants.

Our estimate of this book would lead us, if we could, to give it higher praise than we have done in these general remarks. To say that Dr. Smith has said all that we would have wished him to say would, perhaps, be going too far. Thus, for instance, we find no mention of the very encour-

aging results of treatment of cholera infantum by quinia, as advocated by Prof. Manson, of Richmond; and so we might refer to other approved and already published methods of treatment of other diseases. But such criticism is hypercritical in reference to a general work of the character of the one before us. It is simply impossible for the author of such a work, covering so much ground, to record the *full* amount of his information. He should summarize the result of his experience, observation and study of the works of others.

Manual of Histology. Edited and Prepared by THOMAS E. SATTERTHWAITE, M. D., President New York Pathological Society, etc. In Association with Boston, Philadelphia, Brooklyn and New York City Pathologists. With 198 Illustrations. New York. Wm. Wood & Co. 1881. 8vo. Pp. 478. (For sale by Messrs. West, Johnston & Co., Richmond.)

We would not be understood as in any way lessening the true value of this work by saying that it is *not* a truly American work; nor does it give the knowledge of many Americans. It is singular that when one wants to call a thing *American*, he runs to Boston, New York and Philadelphia for authority for the assertion—especially as regards medical statements. We find, in this book, only three States represented as being collaborators—some of whom we have never heard of until their names were announced upon the title page of this work. Only *one* of the collaborators (Dr. B. F. Westbrook, of Brooklyn) of the fifteen employed by the editor, is even a permanent member of the American Medical Association, which now represents some 2,300 or more of American practitioners—mostly composed of the representative members of the American profession. Of course, the editor himself is a member of the National Association. He has a broad reputation. But why should he claim for his work that it emanates "from American sources," when his own selection of collaborators proves that they are, at least, sectional as to their residences? We do not recognize the name of either a resident or a native of the West or of the South among them. At least seven of his collaborators are not even named in Dr. Atkinson's carefully prepared second edition of "Dictionary of Physicians" of the United States.

We have not written what we have from a sectional bias, but because of the faint hope that the suggestion given will prevent authors, who are preparing books as *American* works, from using such a *nom de plume*, as it were. If a publication

is fairly *American*, let it be so stated; but for the sake of justice to those injured by "faint praise" or by non-mention of names or of States, we appeal from the decision of some authors—let their works appear as individual publications.

Leaving aside the suggestions arising from some remarks in the "Preface" of this book, we find the work well worthy of adoption by any school or section of practice. It gives really an excellent and quite concise view of the present status of histology. Rutherford's, Schaefer's and other like books are amplyfied, while Klein and Smith's, Stricker's and Frey's works—not to refer to several others not named by the editor in his preface—have been abridged. In addition, several facts are recorded by the several collaborators which have been apparently established—we say *apparently*, because many histological statements of facts have before been announced as truths which have afterwards been proven to be fallacies of observation.

Of the twenty-eight chapters, the editor contributes those on "Materials requisite for Histological Work, etc.," "Methods for preparing Microscopical Objects," the chapters on "Blood," "Epithelium," "Connective Substance Group," "Teeth" and "General Histology of the Nervous System." The other well-prepared chapters, he has left to his collaborators, who, we must confess, in each instance, has done his part well. Hence, we have to commend the work as in every way worthy of adoption as a standard text-book for practitioners as well as students, except as regards the general *National* character unintentionally attempted to be ascribed to it.

International Encyclopædia of Surgery. A Systematic Treatise on the Theory and Practice of Surgery by Authors of Various Nations. Edited by JOHN ASHHURST, Jr., M. D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with Chromo-Lithographs and Wood Cuts. In Six Volumes. Vol. I. New York: Wm. Wood & Co. 1881, Large 8vo. Pp. 717—xl. (For sale by Messrs. West, Johnston & Co., Richmond).

The great importance of this "Encyclopædia of Surgery" must be recognized by every surgeon, as well as physician who has to do surgical operations. Had we space to spare we would be glad to publish the full announcement of the intended series of six volumes. Even at the risk of extending this notice beyond the pleasure of some readers, we will copy from the Preface a remark which indicates the general plan of the work: "In the *first* volume are embraced such

subjects as may be looked upon as belonging to *general surgery*, including inflammation, * * *, erysipelas and pyæmia, hydrophobia and glanders, scrofula and tubercle, rachitis and scurvy. Articles follow upon the reciprocal effects of constitutional conditions and injuries; upon the general principles of surgical diagnosis; upon operative surgery in general; upon plastic and minor surgery; upon the use of anæsthetics; upon shock; upon traumatic delirium and delirium tremens, and upon amputations." It is proposed that the completed six volumes shall form a true encyclopædia of surgery.

The authoritative character of this work is proven by the mere mention of the names of authors of the articles contributed. For instance, the authors of articles in this first volume, now before us, are Drs. S. Stricker, of Vienna; Wm. H. Van Buren, of New York; Alfred Stillé, of Philadelphia; Francis Delafield, of New York; W. S. Forbes, of Philadelphia; J. Lewis Smith, of New York; Philip S. Wales, Surgeon-General U. S. Navy; A. Verneuil, of Paris; D. Hayes Agnew, of Philadelphia; C. W. Mansell Moullin, of London; Wm Hunt, of Philadelphia; Henry M. Lyman, of Chicago; Christopher Johnston, of Baltimore; John H. Brinton, of Philadelphia; Charles T. Hunter, of Philadelphia; John Ashhurst, Jr., of Philadelphia; and Henry Trentham Butlin, F. R. C. S., of London. Such an array of authors of extended reputations, is enough in itself to make this a standard work, desirable by every surgeon of this country at least. The work is chiefly *American* (in the usual sense of the term) as it applies, by way of usual publications, mostly to New York and Philadelphia surgeons, whatever may be the well-known ability, extended experience and approved original practice of many distinguished surgeons in other States of the Union.

But leaving such a suggestion as this—which does not really affect the merits of the "Encyclopædia"—for future consideration and remark, we wish only to add (as it is impossible to attempt a notice, of a critical character, of such a work as this at the present moment) that this first volume shows almost conclusively that the entire series of six volumes will be of almost incalculable value to every surgeon, whether he be a specialist or not in this particular branch of practice.

The publishers, as they generally do, have issued this Vol. I in handsome style—nicely printed on good paper and with remarkably few typographical errors, so far as we have recognized by an attentive reading of the book.

Transactions of the Medical Association of Georgia for 1881.

The Thirty-second Annual Session of the Medical Association of Georgia, was held in April last in Thomasville, Ga. Many valuable papers appear in the handsomely edited volume. Dr. A. Sibley Campbell, Secretary of the Association, has well merited the office conferred upon him. He notes the fact that there has been experienced in Georgia "difficulty of obtaining from authors their manuscripts for publication." As Secretary of the Medical Society of Virginia, the editor of this *Monthly* can say that he has met the same difficulties. Rarely have we been more pleased and edified by the publications of State associations than in reviewing the Transactions of the Medical Association of Georgia for 1881.

Opium Smoking in America and China. By H. H. KANE, M. D. New York: G. P. Putnam's Sons. 1882. 12mo. Pp. 156—xii. Cambric. Price, $1. (For sale by Messrs. West, Johnston & Co., Richmond).

Dr. Kane has so fully and so carefully studied the subjects of the "habits" that come from the improper uses of many of the stimulant drugs, and his publications have become so authoritative, that it is needless to remark upon the matter of his *authority* in regard to the subject of which this book treats. We doubt whether there is an observer in this country better prepared to criticize the opinions or conclusions expressed herein than Dr. Kane himself, who has made his name well known, at least to the American profession, by his former publications on "Hypodermic Injections of Morphia," "Drugs that Enslave," etc. We confess that we are not able to review this little volume; but if one quarter portion of the abuse of opium which he details is correct, then its use in this manner, as a pleasure, is most strongly to be condemned. Yet there are some therapeutic uses pointed out—incidentally and apparently unintentionally, or at least suggestively—which make the drug of service, when smoked, with which every practitioner should make himself familiar. The book is very readable, and, as what may be inferred from our remarks, is altogether authoritative.

Marriage and Parentage, and the Sanitary and Physiological Laws for the Production of Children of Fine Health and Greater Ability. By A PHYSICIAN AND SANITARIAN. New York: M. L. Holbrook & Co. 1882. 12mo. Pp. 185. (By mail.)

Here we find a pleasantly-arranged compilation of matter *not* new to the professional man, and perhaps some matter to

unsettle long and, what may have been thought to be, well established principles which have obtained among laymen. Reform in the matter of marrying may be necessary, physiologically speaking; yet we take it to be beyond the power of reach of a thesis, to make men and women do what ought to be done with reference to a healthy progeny. Whatever there is of value in the work before us, loses much of its force from the fact that the author's name is not given. There are many "quackish" works on the subject now handled by such authors as "A Physician and Sanitarian." We never did like to sit with our backs towards a speaker. He should face his auditors.

Sympathetic Diseases of the Eye. By LUDWIG MAUTHNER, M. D., Royal Professor in the University of Vienna, etc. Translated from the German by WARREN WEBSTER, M. D., Surgeon U. S. Army, and JAMES A. SPALDING, M. D., Ophthalmic Surgeon to the Maine General Hospital. New York: Wm. Wood & Co. 1881. 12mo. Pp. 220.

We have read this book with pleasure and with profit to ourselves, we trust. But we do not see the necessity of *two* translators' names being attached to so small a book. The author is distinguished enough, but his translators have brought his book before the American profession in bad enough English to draw the attention of the reader from the sense of the author to a study of the languages, and thus impair the effect of Dr. Mauthner's descriptions of the affections and the treatments thereof which are attempted to be given to the American public. We notice many sentences which are poorly rendered into English, but which can be studied out. Let translators not attempt to give too *verbatim* a translation of any author, but let the translations be given more by the easy expression of the ideas than in the exact translation of the vernacular of the author.

Leaving these faults of the "Translators" aside—which we have not space to point out in the several particulars in which we noticed them—Dr. Mauthner is himself a prominent German authority in the specialty of which his work treats. But why go to foreign writers when this country has equal lights, both as observers and teachers? We have a Jeffries, a Noyes and a Knapp, a Chisolm, a White, a Calhoun, and many others in the United States who have been as close students of sympathetic as well as other diseases of the eye as the author of the book? Dr. Mauthner says scarcely more, under the head of treatment, than to advise "enuclea-

tion;" and even then he does not give some of the most recently approved methods of enucleation of the diseased eye. What American specialist does not know every one of the operations stated by the author? In fact, American "specialists" might advise most of our foreign writers what is a better plan of procedure, at least as to details, than they suggest. American surgeons are undoubtedly far ahead of the European; and the time is near at hand that, instead of surgeons of this country translating the books of other nationalities, they will, for the most part, be translating from American books and journals. We should all study medical science, from whomsoever the information emanates. But we do not find enough in this book to justify us to advise any specialist or general practitioner to buy it, when there are many that are better.

Editorial.

Dr. Thomas J. Moore, late of Charlotte, N. C., and now First Vice President of the Medical Society of North Carolina, has moved to this city and established himself at No. 407 North Twelfth street. He has done efficient service to the profession of North Carolina in many particulars; and as a practitioner in that State was esteemed in every respect as a worthy physician and surgeon. We hope for him the greatest success in Virginia.

Listerine.—Drs. Kaufman and Grindon, of the St. Louis Quarantine and Small-pox Hospital, under notice of recent date, add their endorsation of the use of "Listerine." They state "that in the secondary state of small-pox, a combination of half listerine and half glycerine forms an excellent dressing for the face and hands; it cools wonderfully, and almost entirely prevents the excessive and annoying itching and irritation." They also commend listerine as a disinfectant for the hands and person of the practitioner. We have used listerine with the best results as a disinfectant.

Dr. R. B. Stover, late of Memphis, Tenn., has returned to his old home, Virginia, and established himself in this city at the corner of Grace and Eighth streets. We give him a hearty welcome. There is room for good men and physicians everywhere.

The Baltimore Eye, Ear and Throat Charity Hospital will soon be established under a most excellent management. The managers are well-known business men of Baltimore, and the proposed medical and surgical staff will fully meet the demands of an exacting public.

Medical Appointments for the Virginia Lunatic Asylums.—Not being politicians, we have nothing to say in regard to the political bearings of the new appointments. We must say, however, that the gentlemen who were removed were, in every instance, men of the highest professional reputation, and worthy of the positions they filled. There was no charge against any one of those removed, that we have heard of, except that they were not in political accord with the dominant party. We cannot approve of any act on the part of politicians, which undertakes to judge of medical worth. We sincerely trust that the new appointees may prove as efficient as those who have been displaced. We can safely say, from personal knowledge, that some of the new appointees are physicians and surgeons of high rank in the profession. We trust, in the interests of humanity, if the appointments are confirmed, that the profession and public will give them a hearty support.

Hereto we append a report of the late action of the new Board of Directors in regard to the Central Lunatic Asylum (which is intended solely for colored patients), as it appeared in the Richmond *Dispatch*, March 12, 1882:

"Mr. Flanagan offered the following, which was adopted:

"*Whereas*, it has been suggested that the Superintendent of the Asylum and the late President of the Board of Directors desire to appear before our Board for the purpose of making some statements, verbal or written, as to the new organization of the Asylum and the proposed action of this Board,

"*Resolved*, That the said Superintendent and President be, and they are hereby, invited to appear before the Board forthwith, in person or by proxy, that they may be heard.

"Dr. J. Grattan Cabell thereupon appeared before the Board, and addressed it at length in behalf of the present organization of the Asylum, and argued in favor of retaining the present officers and employees of the Institution, and presented a document in the nature of a protest, which was read.

"Thereupon Mr. Flanagan offered the following resolution, which was adopted:

"*Resolved*, That the document presented by Dr. J. G. Cabell, in the nature of a protest, be received and filed, and that the same be entered upon the records of this meeting, provided this action shall not in any way be so construed as to prevent the Board from proceeding with such elections as it may see fit, nor as any way affecting the tenure of office of any officer or employee of the Institution elected or to be elected hereafter.

"The protest was in the words and figures following:

"CENTRAL LUNATIC ASYLUM,
"NEAR RICHMOND, VA., March 9th, 1882.

"*To the President of the Board of Directors of the Central Lunatic Asylum*:

"Sir,—Understanding that your Board of Directors is about to elect officers for this Institution, I beg leave to state that there are no vacancies at present in this Asylum.

"The present corps of officers was appointed on the 1st of November, 1881, to serve for three years at stipulated salaries. We are not State officers, but have been employed by your predecessors to fill our different positions at stipulated salaries for a specified time.

"We are ready and willing to perform this duty which we agreed and undertook to do. Therefore we respectfully protest against any act of yours looking to our removal. This protest I make in behalf of all the officers in this Institution.

"Respectfully, RANDOLPH BARKSDALE, Supt.

"On motion of Mr. Willcox, further consideration of the document was passed by.

"Superintendent Dr. F. F. Brook, Assistant-Physician J. C. Furguson (colored), and John P. Schermerhorn, Steward, the newly-elected officers of the Central Lunatic Asylum, were formally installed yesterday and assumed the charge of their several departments. So far as we have reports from the new Directors, they express themselves pleased with the administration that has preceded them."

Dr. Robert S. Hamilton has been elected Medical Superintendent of the Western Lunatic Asylum, located at Staunton, by the new Board of Directors, in place of Dr. A. M. Fauntleroy. Dr. Richard A. Wise likewise succeeds Dr. Harvey Black at the Eastern Lunatic Asylum, Williamsburg.

Drs. Fauntleroy and Black have been removed only on account of political reasons, as suggested above. More competent men could not be found in the profession than the physicians removed.

The Southern Planter.—This old and well-known exponent of the farmers and planters of the Southern States has been made a semi-monthly ($2.00 per annum), and has recently come under the management of Major Aubrey H. Jones, a farmer of thirty years' experience and an agricultural writer of highest repute. No agricultural journal with which we are acquainted can more highly commend itself, on account of its practical character, to the patronage of the planters and farmers of the Southern States than the *Southern Planter*. For more than forty years, the most cultivated and successful farmers of the South have been regular contributors to its pages. We have every reason to believe that Major Jones will make a still greater success of the *Planter*.

The Radical Cure of Cancer—Announcement concerning Essays upon this subject offered in Competition for Prizes.—The undersigned, who, in October last, was delegated to receive competing essays on the subject of the radical cure of malignant disease, announces that three essays were presented. In the consideration of their merits the assistance of Dr. George B. Shattuck, editor of the *Boston Medical and Surgical Journal*, was invoked; and it has been decided that no essay is worthy of a prize.

The same subject—namely, *The Probability of the Discovery of a Cure of Malignant Disease, and the Line of Study or Experiment likely to bring such a Cure to light*, is proposed for essays to be presented in competitions not later than the first day of December, eighteen hundred and eighty-three (1883), to the undersigned, who, with such assistance as he may select, will be the judge of their merits.

For the best essay on the above subject a prize of *one thousand dollars* will be given, the right being reserved to withhold the prize in case no essay of sufficient merit be presented.

The sum above mentioned has already been deposited in the New England Trust Company, of Boston, subject to the call of the judges.

The essays must be legibly written in English, and neatly bound. Each one must bear a motto, and be accompanied by a sealed envelope bearing the same motto, and inclosing the name and address of the writer. They will all remain in the possession of the donor of the prize for convenience of reference, and the privilege is claimed to publish the successful one, with the name of the writer. No writer, how-

ever, surrenders the privilege of retaining a copy of his essay and publishing it.

Signed for the donor, J. COLLINS WARREN, M. D., 58 Beacon street, Boston, Mass , U. S. A.

March, 1881.

[There are many of our subscribers who might, with hope of success, compete for this prize.]

State Board of Medical Examiners.—The bill now pending before the Virginia Legislature for the establishment of a Board of Medical Examiners, will, in all probability, fail to pass by reason of the fact that other legislation is deemed of more importance by the prevailing political party. The bill is *not* a party measure, and shares among its friends the best men of the two parties.

Small-pox in Richmond.—The Board of Health of the city announce such abatement of small-pox, as no longer to call for daily and weekly reports to the public. The City Council is slow in selecting a cite for the proposed small-pox hospital.

Headings of Articles.—Several times during our editorial life, we have had occasion, hurriedly, to run our eye over the pages of some of our exchanges for the purpose of filling up "a corner" or to satisfy a tasty printer in his desire to make every page appear full. But at such a moment as this, when we are hurried and want to put into our columns a good case or article, for the benefit of our subscribers (and we say this after examination of several journals which lie upon our table, American and foreign) we find such headings as the following: "Effect of drugs on lactation;" Some facts about diphtheria," etc. *What* drugs are intended to be referred to in regard to their effects upon lactation? What are the "facts" regarding diphtheria that are desired to be brought out? Certainly, editors of medical journals, who are practitioners at the same time, should recognize the great demand for an abreviation of every statement he makes in his journal. To transfer articles from an "exchange" to another journal, without a word of comment, or correction even of typographical errors, argues that the editor has not done what he ought to have done. An editor, whose chiefest wish is to benefit his brother doctors, should revise every manuscript and examine every selection that is intended for his journal. Without full headings to articles in other jour-

nals, we are forced to overlook many articles of highest value that appear in our exchanges.

Dr. J. Edgar Chancellor, of the University of Virginia, is spending the winter at Bluffton, S. C.

Dr. John R. Woods, of Charlottesville, has recently suffered greatly from an apparently slight cut in the hand. He is now much improved.

The Physician in Court.—Speaking of a recent trial in England, in which it was held that the surgeon in a certain case was forced to disclose the confidence of his patient, the *Louisville Medical News* (March 18) says: "Those laws which compel a medical man to appear, and, upon pain of imprisonment, force him to divulge in open court the secrets of which he necessarily becomes possessed through his professional relations to his patient, are a relic of barbarity, a disgrace to the Code, and should be erased from the statute books of all enlightened nations." Certainly the relations between patient and physician are as intimate as those existing between client and attorney. The laws of the country do not force a lawyer to disclose the statements of his client. The physician should not be forced to divulge the secrets of his patient.

Dr. Brown-Sequard.—The Paris Académie des Sciences has conferred the distinguished honor of the *Grand Prix Lecaze*. The money value of this prize is about $2000.

The Growing West.—A correspondent of the *Peoria Medical Monthly* (March, 1882), writing from Newton, Ill., says that Dr. D. S. Fisher delivered five women of nine children between sun-down and sun-up. A good night's work for a doctor on the regular tariff! But six children at one birth is a successful effort of a vigorous woman of California.

Dr. Samuel Green, for many years City Physician, was recently elected Mayor of Boston. He was a compromise candidate and beat the *regulars* of both parties.

"**The American Journal of Neurology and Psychiatry**" is the title of a new quarterly recently inaugurated. Dr. T. A. McBride, editor; and is assisted by Drs. Landon C. Gray and E. C. Spitzka. The new venture is elegantly gotten up by

the publishers, Messrs. B. Westerman & Co., New York, and its first issue gives every assurance of the most excellent editorial management.

Dr. E. A. Adams, an Assistant Physician of the State Insane Asylum of Michigan, was stabbed by a patient on January 6th, and died the following day.

Jefferson Medical College.—The matriculates of this old college numbered 630 during the past session. Prof. Gross, of this college, recently performed an operation upon one of the salivary glands of U. S. Senator Hill, of Georgia, and attending physicians are now hopeful that the cancerous affliction may be entirely removed. Prof. Chapman will deliver the valedictory address to the graduating class on commencement-day, March 30.

Dr. R. O. Cowling.—The eulogy pronounced by Dr. D. W. Yandell before the graduating class of the University of Louisville, February 28th, on the life and character of Dr. Cowling, is an admirable production. The example of such a man and physician as Dr. Cowling should be before every young practitioner.

Epidemic Convulsions.—Dr. Yandell has written a most interesting history of Epidemic Convulsions for the *American Practitioner*.

Dr. J. S. Billings, of the United States Army, delivered the annual address before the graduating class of Bellevue Hospital Medical College, on March 15th. There were 163 graduates.

British Medical Profession.—According to the official *Medical Register*, the roll of the profession in Great Britain includes 23,275 registered persons.—*Med. News*, March 25.

Knife Swallowed by an Infant.—Dr. J. T. Hodges reports the case (*St. Louis Courier of Medicine*, February) of an infant, aged two years and five months, that swallowed a silver fruit-knife, of ordinary size, and passed the same in a mass of consistent fecal matter, after it had occupied the alimentary canal over 45 hours. No bad consequences.

Texas.—The Medical Department of the Texas State University will be located at Galveston.

Small-pox.—From latest reports, it appears that the small-pox epidemic is disappearing throughout the country.

The Society of Alumni, Medical Department of University of Louisville, Ky., will hold an important meeting on April 5th. The *Medical News* does not state for what purpose.

Celerina.—This preparation of Messrs. Richardson & Co., the formula of which is given elsewhere, is growing in favor, and deservedly so, with the profession. For the relief of painful menstruation, or for the relief of mind incident thereto, we have found this tonic of great value. For nervous disorders generally, we would place a high estimate upon the preparation.

Tetanus.—Dr. Thompson (*British Medical Journal*) treated three cases of tetanus, with two recoveries, by the hypodermic use of one-sixth of a grain of extract of physostigma.

Personal.—Dr. J. C. Furguson, recently elected Assistant Physician for the Central Lunatic Asylum of this State, is, so far as we know, the only colored physician occupying any official medical position in the United States.

Queries and Answers.

Does Menstrual Suppression Counteract Vaccination?—We have never before heard this question raised, and up to the present time we have been unable to find any suggestion on the subject. As to a reply to the question asked by our friend, we do not know what kind of answer to make beyond the supposition on our part that there is no counteraction between such a condition as suppressed menstruation and the proper effect of vaccination. We, however, give the Doctor's letter in full, so far as relates to this subject, and request answers in brief, under this heading, from any of our subscribers who may be able to throw light on the subject:

"I was consulting physician at a small-pox hospital in this county. The first patient attacked with the disease was in a stage of collapse when I saw him, and he died. All the rest of this family, four in number, were vaccinated. The

vaccination took well with three of them; the fourth case was re-vaccinated without effect. She took small-pox and died very quickly without breaking out, and, in fact, was dead when I reached the place. Upon inquiry, I found she had been suffering with suppression of her menses for twelve months. The question with me is, Will suppressio mensium produce a specific effect or poison in the system which will counteract the proper effect of vaccine virus? The virus I know was good and reliable. The other two women escaped entirely; the other man had varioloid very slightly.

"Yours, &c., R. A. B."

Obituary Record.

Dr. N. L. Cheatwood.—We regret to announce the death of our friend Dr. N. L. Cheatwood, who died at his residence in Bedford county near Lynchburg, on the 23d of February, after a long and painful illness. In the spring of 1878, Dr. Cheatwood had a severe attack of acute pneumonia of the right lung, from which his health never recuperated entirely; and while he attended to his professional duties and his farm, he did so under great physical discomfort and weakness, until he was confined to his bed from congestion of the stomach and nervous prostration. In the death of Dr. Cheatwood, the community in which he lived have lost a valuable and useful citizen—not only as a citizen but as a friend; and as a parent he stood in the front rank. He was a gentleman in every sense of the word, quiet and unassuming in his manners, retiring in his habits; yet in social intercourse he was affable, kind and obliging, attracting to himself many warm friends from all classes. He gave to his profession his whole thought, and all his strength, making it the principle purpose of his life to meet its requirements, until declining health and infirmities caused him to withdraw from active practice during the last two years of his life. He was always and emphatically a benefactor among the poor, to whom his services at all hours were cheefully given; and by these, outside the circle of his family and friends, he will be long and gratefully remembered for his numerous and gentle acts of sympathy and kindness. As a physician he had clear conceptions of his cases, was prompt in action, was fertile in resources, was hopeful, and watched the issues of life and death with sleepless vigilance. He had nothing of the laggard in his nature. He was not only an accom-

plished and successful physician, but was one of the most successful and intelligent farmers in Virginia, and his farm was noted for the perfect order and beautiful condition in which everything was kept.

Dr. Cheatwood was a student of the University of Virginia during the session of 1859–60, and graduated at the University of Pennsylvania in the spring of 1861, and commenced the practice of his profession during that year in Bedford county. In 1869 he married the eldest daughter of Mr. Stephen Hurt of Lynchburg, who survives him with four bright and interesting daughters. He was a member of the State Medical Society, and was about forty-two years of age.

B.

Dr. F. F. Brooke, recently appointed Superintendent of the Central Lunatic Asylum, near Richmond, died in this city, on the night of March 30th, from congestive chill. We make this announcement as we go to press.

Dr. Theodor Schwann, University of Liege, died at Cologne in January last, in the seventy-second year of his age. He was celebrated as the exponent of the doctrine of the cell-formation of animals.

Dr. Robert Bridges, Emeritus Professor of Chemistry in the Philadelphia College of Pharmacy, died February 20th, 1882, in the seventy-seventh year of his age. He was the American Editor of "Fownes' Chemistry."

Dr. Nikolaus Pirigoff, Professor of Surgery to the Medico-Chirurgical Academy in St. Petersburg, the author of many valuable treatises, as also of a partial amputation of the foot, died at his home in St. Petersburg about the middle of February.

Dr. Joseph Pancoast died at his home in Philadelphia, March 7th. This great surgeon was born in 1805; graduated in 1828 at the University of Pennsylvania. In 1844 he published the first edition of his work on "Operative Surgery;" and it is stated that within ten years 50,000 copies of this treatise were sold. In addition to his well-known works, his monographs in the leading journals of the country were most widely read, in Europe as well as America. Not only in the field of medicine, but as an artist and poet he won no mean place. A great and remarkable surgeon and scholar has thus been lost to the country.

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Original Communications.

ART. I—**Electrolysis in the Treatment of Aortic Aneurism—A Clinical Lecture.** By WILLIAM PEPPER, M. D., Philadelphia, Pennsylvania.

Gentlemen,—I show you first, this morning, the specimen from a case of a very interesting character—a case, in fact, of double aneurism of the aorta; and I propose to discuss with you, for a few moments, the subject of electrolysis with reference to the relief and cure of aneurism.

The man from whom this specimen was taken was always a hard-working man, plying an occupation which required a great deal of muscular exertion, and who also showed a distinct syphilitic history. He first came under treatment for supposed intercostal neuralgia; but the pain remained so constant and severe that a more thorough examination was given, and a prominence near the spine in the thoracic region was discovered, the pulsating and heaving character of which, as well as the thrill, warranted the diagnosis of aneurism. To make sure it was no other form of thoracic tumor, the exploring needle was used to confirm the diagnosis.

At this point let us discuss the treatment of internal aneurisms. As they are internal and not in reach of the surgeon, so that the main arterial trunk may be ligated, the ollowing medical means have been thought of:

First. Specific remedies, and those that will favor clotting of blood; as the mineral salts, lead, etc.

Second. Physicians, finding that, as people were starved, the blood became very rich in fibrin, thought that there was more likelihood of a clot being formed under a plan of partial starvation than when the patient was allowed full diet.

Third. As all increased muscular exertion causes increased action of the heart, and, hence, the more immediate danger of rupture by the increased force of the blood-current through the sac, rest was considered beneficial. In reality, the last two—namely, perfect rest and as low diet as is consistent with absolute life—are most important elements in our medical treatment; and as you never find aneurisms without atheromatous changes in the coats of the arteries, alterative remedies, as potassium iodide, become valuable, more especially when syphilis is an element in the disease. In the case before us, potassium iodide did not check the progress of the affection.

But supposing, despite the treatment referred to, the aneurism goes on growing larger and larger, protruding more and more against the chest, so that the thoracic walls and ribs are giving way before it, the tissues over it are growing thinner, and the thrill and pulsation more evident each day. The question will then come up, and is often anxiously asked by the patient, "Can nothing else be done to relieve me; to ward off this impending result, and save the life, just hanging by a thread?" This is often very difficult to answer, except when the aneurism is of a vessel so located that the main trunk may be ligated; but, of course, when situated in the thoracic aorta, or arch of the aorta, this cannot be done. There remains, then, nothing to do but to put something into the sac that, mechanically, will form a clot in it. Needles, horse-hair threads, etc., have been tried with little advantage. The galvanic current alone has proved a success. You know that, if two needles, connected with the poles of a battery, be placed in a dish of albumen, it will be soon coagulated. I take here two needles so connected, and by placing them into the white of an egg, you see immediately the needles become coated; and as I continue the process, a

firm, strong clot is formed at the negative pole, and a small, friable one at the positive pole. This process has been taken into consideration in the operation of electrolysis.

The mode of operating is very simple. You need two sharp platinum needles, coated with gutta percha; and after freezing the skin with ice or with ether-spray, you should plunge one needle, previously connected with the galvanic battery, boldly in with a single stroke, until you feel all resistance cease. The second needle is to be introduced the same way. Thus far, it will cause but little pain; but the moment the current is turned on, the heart will give a great bound and the pulse become greatly accelerated. This should not, however, be any cause of alarm. Gradually turn on the full current and leave it on for some minutes, when the operation is completed by withdrawing your needles.

Electrolysis is only applicable when the medical treatment has been tried, and when the aneurism comes up closely to the thoracic walls; but this is so often the case, that it can be frequently applied. Here is a specimen from a case in which the operation has been performed twice in this Hospital, at the urgent request of the patient. The needles were introduced, and almost immediately the operations were followed by great relief of pain and great reduction of pulsation and thrill. In a short time, however, all these bad symptoms returned, and the operation was repeated with the same beneficial results. The man finally died from exhaustion, and, at a post-mortem examination, large fibrous clots were found at the points of insertion of the needles, which, no doubt, prevented rupture of the sac. The operation therefore was perfectly satisfactory, so far as relief of pain and comfort are concerned. The last fact is the same as is shown by the study of the results of about one hundred cases, in whom, in about two-thirds of them, temporary relief from pain and suffering was given, and only in a very small per cent. had it a curative effect; still, in no case had it ever done any harm. I think, myself, that the operation under such circumstances as I have stated is perfectly justifiable, and I would be perfectly willing to have it performed upon myself.

To return to our first patient, I would say that he came into the hospital for such treatment; but the day before yesterday, while standing at his bedside, he commenced spitting blood, and in less than two hours he was dead. In looking at the aorta, it shows disease of the coats of the descending portions, and a double aneurism; a small one coming from the descending arch, about the size of a walnut, unruptured, and one ruptured sac, as large as a child's head, springing from the posterior wall of the thoracic portion. This large sac had hollowed out the surrounding lung, and in bursting had torn the adjacent structures and opened a bronchial tube. Of course, in this case the process had gone on so long that the operation of electrolysis would have been perfectly negative in its results; and as upon it might have rested the blame of this unfavorable termination, I am glad it was not performed.

ART. II.—**Intestinal Obstruction, with Report of Two Cases.**
By CHARLES G. POLK, M. D., Philadelphia, Pa.

The following case seems to me to possess certain features which invest it with interest and entitle it to a place in medical literature :

Mrs. K., age 55 years, born in Ireland, had previously enjoyed good health. She possessed a robust constitution, and would have been quite exempt from the physical ills to which flesh is heir, had she not acquired a left inguinal hernia during child-birth when she was thirty-five years of age. During the past twenty years it had not been entirely reduced, but had seldom subjected her to any important inconvenience. Occasionally, however, upon severe exercise, or upon lifting a heavy weight, the tumor would enlarge and cause an intense pain. This she usually overcame by laying upon her back and making firm pressure with her hands. When she has failed, my services have been invoked during the past five years, and I have found but little difficulty in relieving her.

On the evening of the 31st of November last, I was summond to attend her in a severe attack of colic consequent upon having eaten cabbage—a result which always followed eating of that vegetable in her case. I found the hernia very much enlarged, bat returned it without difficulty to its pre-

vious dimensions. I encouraged emesis (which was already present) with warm water, until assured that all foreign matter was thrown off. The pain in the abdomen being very intense, I prescribed two grains of calomel and one-fourth grain of morphia sulphate to be given every hour until the pain was relieved. She slept after taking the third powder, and awoke on the morning of December 1st with merely a slight soreness near the umbilicus and over the region of the liver. In accordance with my suggestion, she had taken a bottle of the citrate of magnesium about three hours previous to my morning visit. Upon finding that her bowels had not moved, I gave an enema and secured two free evacuations. I saw her again on the evening of the first; there was then but very slight soreness around the umbilicus, but nothing that to my mind suggested danger. She then passed a comfortable night. On the morning of the second, and about six o'clock, without any previous warning, she felt a twisting sensation just above the umbilicus, and immediately afterwards something seemed to give way, followed soon by intense pain. I gave her an enema, without bringing away fæcal matter, but a hypodermic injection of one-half grain of morphia sulphate promptly relieved the pain, and she rested comfortably until seven o'clock in the evening, when all at once she vomited fæcal matter. Intestinal obstruction was almost evident, and with all the probabilities of a fatal result, I determined to summon to my aid several of my most valued medical friends. Dr. John S. Ramsey, formerly Assistant Surgeon in the United States Navy, at once hastened to my assistance, and Dr. William Hunt, who needs no introduction to the surgeons of Europe and America, appointed a consultation on the following morning, being unable to meet me that evening.

Dr. Ramsey at once undertook the reduction of the old hernia, in which he failed. While accepting my opinion, which I at once expressed, that there existed an intussusception not immediately connected with the old hernia, he regarded the old hernia with a suspicion with which I did not sympathize. We tried distention of the bowels with air without success, as also nearly standing our unfortunate patient upon her head, a device by which I once saved the life of a soldier. Her stomach, in the meanwhile, rejected everything introduced in it but citrate of magnesium, which quieted her stomach and which, strange to say, seemed to pass through her bowels even after the fæcal vomiting had occurred. A quarter of a grain of morphia was administered

every hour during the night without producing narcotism or even entirely subduing the pain.

On the morning of the third I saw the case with Drs. Hunt and Ramsey. The slim chances of surgical interference were laid before the daughters, who refused to permit the operation. She gradually grew worse, and died at noon on Sunday, December 4th.

Autopsy.—I held an autopsy, assisted by Drs. Ramsey and D. D. Swift, on the body, on the following day. On incision of the muscular walls and exposure of the peritoneum, it was found extensively inflamed, the greatest degree of intensity being around the umbilical region, from this point radiating toward the two sides and downward; the omentum and mesenteric glands were well injected; the liver was slightly engorged; and there was no excess of fluid in the abdominal cavity. Upon examining the old hernia, it was found to be strongly adherent to the surrounding tissues. The sac contained a fold of omentum; the intestine therein was less inflamed than in the portions of the intestinal tract above it. My strongly asserted opinion that the old hernia was not involved in the obstruction, was thus sustained. In the ileum we found an intussusception of two and one-half inches in extent, deeply involved in the inflammatory processes, the portion of the intestine that was forced into the intestinal canal being glued firmly to it.

The questions this case presents are: Was there at any time in the progress of the case any possibility of relief? If so, in what manner could it have been accomplished, and at what time? Although I strongly suspected the occurrence of the intussusception on the morning of the 2nd, I do not think the evidences then presented would have justified laying open the abdominal cavity and overcoming the intussusception. The conclusion would have been based upon too slender data for so formidable an operation. The surgeon who should thus proceed, and then fail to find an intussusception, would more than rebuke himself if the operation seemed the direct cause of death. There are, however, probabilities that had I operated upon Mrs. K. as soon as I suspected the lesion, she would have been living to-day. How uncertain is our art, and how unrelenting is the foe with which we must contend—*Death!*

With the irreducible hernia before us, it was but natural

that our minds should have been directed to it. The probabilities in nearly all, and possibilities in all, cases would point to it. I felt in the consultation that my consultants regarded me somewhat amiss in almost entirely ignoring the old hernia in the cycle of morbid conditions; and looking back at the case the justice of such a verdict appears clearer to my mind than then. I had, however, eliminated the old irreducible hernia from the list of causations for the following reasons: At no time was there pain or tenderness in the old hernia. I had, without difficulty, reduced it to the size it had been for twenty years. The evacuation of the bowels on the first, showed that there was no obstruction on that day; there had been no pain in it at any time, and no soreness until after attempts at reduction on the evening of the second, and then no more than would be anticipated after persistent taxis; on the other hand, the sudden twisting of the bowels, the feeling that "something had dropped down," to use the exact language of the patient, and the pain, tumefaction and tympanitis over the spot where she felt the pain in the morning, led me to the opinion that an intussusception existed in the small intestines and had no connection whatever with the old hernia, as the autopsy verified.

In the month of August, 1875 (then myself an apparently hopeless invalid, and taking temporary care of the practice of another physician), I encountered another very interesting case of intestinal obstruction.

One morning I was called to a young man about twenty years of age, who was suffering with intense pain and obstinate constipation; there was much tenderness over the abdomen, but I do not think greater than I have seen from obstinate constipation. Upon inquiry, I found his bowels had not been moved for four days; that he had had considerable pain in his bowels, but had not taken to his bed until that morning; that the evening before he sat at the table and ate his supper. With castor oil, croton oil, and enematas, I tried for two hours to secure an action of the bowels without success. I then asked for consultation. Dr. Eugene Bernardy came just as he gasped his last breath, about three hours after my arrival.

Autopsy was performed on the following day, assisted by Drs. Bernardy, Woolsey and another physician whose name

I have forgotten. We unanimously voted an intussusception; as the young man had been lifting heavy boxes previously, we supposed he had thus produced the obstruction; but the autopsy showed only severe peritonitis, puzzling us how any one could have walked around for days with it. We were about writing our diagnosis, "peritonitis from unknown causes," when Dr. Bernardy carfully felt of the appendix vermiformis and called my attention to a hard substance in the pouch. Upon opening it, it was found to contain a mass of dry and very hard fæcal matter, which, no doubt, was the cause of the malady.

2219 *Catharine Street.*

ART. III.—**Treatment of Inflammation of the Eustachian Tube.** (A Lecture). By GEORGE STRAWBRIDGE, M. D., Surgeon to Wills Hospital, etc., Philadelphia, Pa.

The first indication in the treatment is to arrest the inflammation; the second is the management of the Eustachian tube; the third indication is the bringing of the drum membrane back into its proper position; the fourth is to dispose of the products of inflammation.

First. The arrest of inflammation. If there is a feeling of fulness and pain in the ear, and there are signs of hyperæmia, apply a leech every one, two or three days, for a week or ten days. You get on badly in the treatment of this affection so long as there is much hyperæmia of the tympanum.

I recently had a case, treated by the family physician, the diagnosis being tubal catarrh. He had treated the tube, which improved some of the symptoms, but the sense of hearing failed to come back. I found considerable hyperæmia of the tympanum. I think I used three leeches at intervals of three or four days, and each leech brought the hearing up perceptibly. Then I went on with merely the ordinary treatment. You may use a blister behind the ear. I should recommend this—not because I have any special faith in it, but it is an old practice, and does no harm, and may do some good. The tincture of iodine on the mastoid frequently does well. I have occasionally painted nitrate of silver upon the drum membrane with good results. This winter, I have sev-

eral times had pain in my own ear, and have brushed upon the drum membrane an eighty-grain solution of nitrate of silver, which relieved the pain very nicely, producing only a moderate feeling of warmth. The tincture of iodine may be painted upon the canal near the drum membrane, but it should be used lightly, because it may produce considerable pain. The ear should be protected from the cold, as it is sensitive and loses the warmth.

The management of inflammation of the Eustachian tube is by general treatment of catarrhal sysmptoms as well as by treatment of the tube itself. I am in the habit of using a rubber spray instrument which bears my name, spraying thoroughly the upper pharyngeal space, and even the nares if necessary. Ordinarily, I use a twenty-grain solution of nitrate of silver every second or third day. The solution, however, may vary from five to eighty grains per ounce, being careful that you do not cause too much pain, and that the patient reacts after the inflammation—the guide being that the parts should not remain sensitive more than a few hours after the application, and if relief of symptoms should be given. In the application of nitrate of silver to these parts, I advise you to feel your way along somewhat experimentally, all the time observing its effects carefully. Carbolic acid to spray the throat with is an extremely good remedy, and may be used in the strength of one to two drachms to the pint of water. This hurts considerably during the first part of the application, but it does not last long. A great variety of astringents may be used, but I will not stop to enumerate them here. Your remedies are a little more effective if applied directly against the mouth of the tube. I would also advise the use of the ordinary Eustachian catheter, or my own faucial catheter. With the faucial catheter, from a fraction of a drop to two or three drops of the solution will be sufficient. With the ordinary catheter you will require more, on account of much being arrested in the interior of the catheter. Be careful not to apply it too frequently; it may excite pain; and be careful also not to throw it into the tympanum. I use my solutions pretty strong. A twenty to eighty-grain solution to the fluid ounce of water of the nitrate of silver is quite proper to use.

The indications are to open the tube so that the patient hears as well after inflation as before. So long as you improve the hearing by inflation, you have a right to diagnosticate that there is insufficient patulency of the tube. I rarely use bougies, as true strictures are extremely infrequent. Inflation may be accomplished by means of the Eustachian catheter, Politzer's method, by my faucial catheter, or by Vasalva's method. The objection to Politzer's method and Valsalva's is, that it inflates both ears at once, whereas we may require it in only one, although in this diseased condition generally both ears are affected. The indications for inflation are usually more than one. So long as the hearing needs to be elevated to the highest attainable point, inflate, but be extremely careful about over-inflation. I never give my patients a Politzer bag. I sometimes test the hearing by means of a watch, and if it is not quite up to the standard, then I inflate a little. You may take a flexible rubber tube and exhaust the air from the meatus externus sufficiently to draw the drum membrane out. You may give the patient this tube, one end to be placed in the ear and the other in the mouth of the patient, and by exhausting the air by the mouth, draw the drum membrane outward. I object to this method somewhat, because it produces a certain amount of congestion of the tympanum. The plan has not, in my hands, been very successful.

Paracentesis of the drum membrane is often serviceable for the relief of the sunken condition of the said membrane. It is as good for the relief of tinnitus aurium as anything I have tried. *The rationale* of its use is this: Every time you make a puncture a cicatrix forms, and in consequence, contraction of the membrane tends to diminish the sunken condition. It also allows the air to enter the tympanum, when the latter may somewhat represent a vacuum. To dispose of the products of inflammation, I would simply use mercury and iodide of potassium. I think I prefer to use the inunction method for four to eight days—long enough, if possible, to get a little metallic taste in the mouth, but no approach to salivation—followed by ten days or two weeks of iodide of potassium; then return to the mercury if neces-

sary. But you may use mixed treatment. Sometimes you will accomplish an unexpected amount by this treatment, especially if there be any syphilitic complication. Much more might be said about this connection.

Another point I would lay stress upon, and that is, the bringing of the patient's health up to the highest state possible. Have him well fed, well clothed and well taken care of generally, and do not let him work too hard. In short, keep the patient in the best possible hygienic condition. In summer, take baths daily if the patient bears them well; in the winter, twice per week, perhaps, only a sponge bath, followed by much friction. If clear water is depressing, use salt water baths—artificial salt water if you please. A good plan is to have the patient rubbed down every night with hair mittens or its equivalent.

Clinical Reports.

Hypodermic Use of Quinia Sulphate in Fever.* By W. D. SAWYER, M. D., A. B., Ex-President of the Mobile Medical Society, etc., Whistler, Ala.

I was called in haste to see a strong woman about thirty years old, who had fallen in the yard and was carried into the house helpless and unconscious. I found her with an unsteady, weak and rapid pulse. The pupils of her eyes were contracted to a point. Her breathing was shallow; the impulse of her heart was feeble and intermittent; her skin was cold, and her appearance was that of collapse. The house was filled with neighbors, some of whom declared they knew she had heart disease, as they had heard her say so. This I knew was a mistake, as I had been her physician for years, and there were no signs of heart disease. Others thought it a fit. All agreed in asserting that she was in a hopeless, dying condition. Nothing could be given her by the mouth. An attempt to give whiskey and water produced strangling.

I could get no history of her sickness, except that two days before, at about the same hour, she thought she had a chill, followed by a slight fever and headache.

I injected hypodermically several syringefuls of ether and brandy, which improved slightly her circulation, and as soon as it could be procured, I also administered five grains of

quinia sulphate dissolved in water by means of tartaric acid. In an hour I gave five grains more of the quinine hypodermically, and repeated these injections every three hours for six times, when consciousness returned, with the ability to take medicines by the mouth.

As soon as reaction was established by constant rubbing with mustard for an hour or so, etc., by the injections of ether and brandy, she became so restless, and at times so violent, that it was necessary to inject hypodermically tincture of opium, twenty drops (which was at hand), and afterwards small doses of morphia sulphate, in order to quiet her nervous symptoms. The effect of the quinia injection was also seen to be *sedative* after each injection. The effect of the opiate was also beneficial in strengthening and increasing the volume of her pulse. She gradually became rational and made a good recovery.

Her highest temperature observed was 102° F., which quickly subsided under the influence of quinine.

* This case has been sent us in further illustration of the paper by Dr. Sawyer published in the January number, 1882, of the *Monthly*. The manuscript was received too late for insertion in that number as also in the February number. We avail ourselves of the earliest opportunity to publish the case, which should be taken as an illustrative case of the paper by the Doctor in the January number.

Original Translations.

From the French and German. By WILLIAM C. DABNEY, M. D., Charlottesville, Va.

The Enucleation of Non-Pedunculated Intra-Uterine Fibroids. M. Défannear, of Angers, read a paper on this subject before the Société de Chirurgie on the 11th of January last. It was based on five cases on which M. D. has operated. The following, which are the conclusions at which he arrived, are taken from *Le Practicien* of Feb. 6, 1882:

1. Enucleation is the only operative procedure applicable to sessile fibrous tumors developed in the wall of the uterus, and projecting into the uterine cavity or the vagina.

2. The operation is only indicated in those cases where the life of the patient is endangered by hæmorrhages; for experience teaches that enucleation tends to occur spontaneously by reason of the progressive decrease in thickness of the capsules, and their tendency to descend in the uterine cavity.

3. Use the finger for the purpose of enucleating, but if this will not answer, recourse must be had to a curette or some other instrument. In attempting to break up the tumor, the finger or instrument should always act in the direction of the tumor, and not up the uterine wall.

4. When the upper portions cannot be reached by the finger, it is necessary to resort to torsion, combined with traction. It should be drawn down with tenacula, or, when it can be used, the linear écraseur, which is by far the best instrument for holding the womb and making traction.

5. Ergot should be administered freely after the operation, and all antiseptic precautions should be employed.

The discussion which followed the reading of the paper was participated in by a number of surgeons.

M. Despres, who opposed all that M. Défannear had said, regretted that the indications and contra-indications for the operation were not better established.

M. Trelat said that the diagnostic and operative difficulties related to the way in which the tumor was united to the uterine wall; it was often very difficult to determine whether it was pedunculated or sessile. He had frequently employed the écraseur to steady the organ and draw it down, with most satisfactory results.

M. Guéniot said he agreed fully to all that had been said, but he thought that only moderate traction should be made for fear of causing inversion of the womb. He mentioned also incidentally the liability to mistake a polypus for an inversion, and *vice versa*—a mistake which had been made by very competent surgeons.

M. Despres thought the diagnosis could always be made by rectal touch and abdominal palpation.

M. Gillette thought that torsion was indicated in all cases of uterine fibroids, whether they were pedunculated or sessile.

M. Sée said he was not an advocate of violent traction or torsion.

M. Guyon disapproved of torsion as a general thing, and said it was only applicable in exceptional cases, such as mucous polypi of the neck. Following the plan advocated by Dupuytren, to cut the base of the tumor by scissors, he insisted on the finger as a guide; there was no danger of hæmorrhage.

Cyanide of Mercury in Ocular Syphills.—At the meeting of the Société de Biologie, January 28, 1882, M. Galizowski read a paper on this subject (*Le Progrès Médical*, February

4th). He stated that injections of cyanide of mercury had proved remarkably efficacious in his hands in controlling certain syphilitic troubles in the membranes of the eye. When there was syphilitic atrophy of the optic nerve, or when the disease attacked the choroid or retina, the ordinary preparations of mercury had proved, in his hands, as well as in the experience of others, very unsatisfactory, and the experiments which he had made in conjunction with M. Fournier with the albuminate, had satisfied him that it possessed scarcely any value. He had used the cyanide in many cases of iritis, choroiditis, and even in atrophy of the papilla of syphilitic origin, and the results had been highly satisfactory.

[In the abstract of M. Galezowski's paper, published in *Le Progrès Médical*, no mention is made of the dose. Bartholow says it should be given by the mouth in doses of from $\frac{1}{20}$th to $\frac{1}{6}$th of a grain.—W. C. D.]

Sub-Clavicular Tympanism with Reference to the Diagnosis and Prognosis of Pleuritic Effusions.—M. Grancher presented a communication on this subject to the Société Medical des Hopitaux on the 13th of January last (*Le Practicien*, Jan. 30th). He insisted, as Hirtz and Potain had previously done, that from the changes in pulmonary resonance which occurred in the course of pleuritic effusions, it might be determined what the condition of the lung structure was—a point, the importance of which will scarcely be questioned. He arrives at the following conclusions:

1. When, in a person suffering from pleurisy, there occurs, in the subclavian region, an augmentation of the sound [tympanic sound on percussion], of vocal vibrations and of respiratory murmurs, all at the same time, it may reasonably be concluded that the pulmonary parenchyma is intact, in the upper part of the lung, at least. It may be compressed, but it takes only an indirect and passive part in the process. Under such circumstances, the pleurisy is uncomplicated, and the prognosis is very favorable. M. Grancher has had five cases of this kind—all of which terminated in recovery. In another case, in which the patient died of a pneumonia of the lower lobe, he diagnosed in the manner just mentioned, the integrity of the upper lobe, and it was verified at the autopsy. M. Grancher proposes to call this variety of tympanism "supplementing tympanism," because the increased tympanic resonance is accompanied by increased respiratory sound and increase of vocal vibrations.

2. When there occurs a diminution of respiratory mur-

mur, with tympanic resonance and increase of vocal vibrations (which is the most common case), it is probable that, in addition to the pleuritic effusion, there is a lesion of the upper lobe of the lung. There is a congestion, simple or tuberculous in its nature, which sooner or later follows the effusion, and may terminate in phthisis. This is the tympanism of congestion.

3. When the sub-clavicular tympanic sound co-exists with a diminution of both respiratory murmur and vocal vibrations, it is probable that there is compression of the part of the lung where the vessels enter (*hile pulmonaire*), or of the large bronchi of the upper lobe. It may, however, be due to the presence of pulmonary œdema, which is superadded to the pleuritic effusion. This variety, which is the most rare, may be called the tympanism of congestion and pulmonary œdema.

Iodoform in Chronic Pulmonary Affections.—(By Prof. G. Ciaramelli, *Rundschau*, January, 1882.) Since Semmola first introduced iodoform as a remedy in affections of the lungs and the early stages of phthisis, Prof. Ciaramelli has tried it in various affections of the air passages, and has observed, in those cases where there was a cavity in the lungs, a marked "change" for the better occurred in the cases where there were purulent contents, and at the same time a decided reduction of temperature. He does not consider iodoform, given internally, a curative agent in this intractable disease; but he thinks it will *prolong* life.

From the experience already had with the drug, he thinks it highly probable that when it is administered in the early stages of a caseous pneumonia it may prevent the breaking down of the lung tissue, and bring the disease to a standstill. It has frequently given good results also, he states, in chronic bronchitis, with bronchorrhœa and emphysema. He gives the remedy in the dose of two-thirds of a grain from three to five times a day, and states that small doses only should be employed. Large ones cause gastric irritation.

When given internally, iodoform is rapidly absorbed, and may be detected in the saliva, sweat, milk, nasal mucus, tears, urine, fæces, and biliary discharge; it has been found also in the menstrual discharge and the amniotic fluid. According to Semmola and the author of the present paper, its action in bronchial and pulmonary affections is due to the fact that it is excreted "in substance" (for it is not readily decomposed) through these channels. Its action is a direct one on the affected tissues; and in order to obtain good re-

sults, it is necessary that its administration should be continued a long time. Prof. Ciaramelli thinks it acts also by allaying the irritation which is always present in these lung and bronchial affections—the drug itself being entirely unirritating, and exciting a very decided anæsthetic action.

He considers tuberculosis an infectious disease, and thinks it possible that one way in which iodoform acts is by virtue of its disinfectant properties, which it possesses in common with turpentine, creosote, carbolic acid and other agents—only in much greater degree.

Absorption by the Bladder and Urethra.—The paper with this heading by Prof. Maas and Dr. Pinner, appeared in the *Deutsche Zeitschrift für Chirurgie* (14 Band, 5 a 6 Heft). After referring to the difference of opinion which exists on the subject, even among those who have investigated it experimentally, the authors give an account of their experiments, and arrive at the following conclusions, which are in keeping with the opinions generally entertained at the present time:

1. The healthy human bladder absorbs iodine and pilocarpine, but much more slowly than other absorbent surfaces. The elements of the urine are absorbed and gain access to the circulation through the mucous membrane of the bladder, but so slowly, and to such a slight extent, that no dangerous or unpleasant results ensue.

2. The diseased bladder absorbs far more readily than a healthy one, and advantage may be taken of this fact in the administration of medicines. Infectious matters are frequently absorbed by the diseased mucous membrane of the bladder, and give rise to serious trouble.

3. The human urethra possesses considerable absorption power, both in the healthy and diseased condition, and, unlike the bladder, the healthy urethra seems to absorb as readily as when it is diseased.

From the Spanish and Italian. By WM. G. EGGLESTON, M. D., Hampden Sidney College, Va.

New Method of Characterizing the Alkaloids.—Maurice Robin gives a very simple and practical method for detecting the various alkaloids and their salts. It consists in mixing intimately a particle of the substance to be examined with double its weight of pulverized cane sugar, and adding at the

top one or two drops of pure sulphuric acid. This will give a particular and distinguishing color for nearly all the alkaloids.

Muriate of morphia gives a beautiful rose color, passing rapidly to violet, closely resembling a solution of permanganate of potash.

Codeia gives a cherry red, afterwards violet. It is easy to distinguish codeia from morphia in this way—this being very important, as codeia at present only gives *comparatively* negative characteristics with the other alkaloids. The same reaction enables us to detect adulteration of codeia with sugar candy and a few other substances.

Sulphate of quinine gives a greenish color, afterward clear yellow, then coffee-black, surrounded by a yellowish circle.

Sulphate of atropia, violet, turning to brown.

Strychnia, red color, changing to coffee-black; the same as *santonine*.

Narcotina, beautiful brown mahogany, very pure and persistent; completely characteristic.

Salicine gives a vivid red.

Veratria gives a deep green.

Sugar of milk will give some of these reactions, but they are less decisive.—*La Union Medical.*

Anæsthetic Mixture.—*Wachsmut:*

℞. Chloroform (pure)..... .....10 parts
Spts. turpentine..... .....50 " Mix.

Frank has used this mixture in ten operations, and says that anæsthesia is rapidly attained without disagreeable symptoms.—*La Union Medical.*

Intermittent Fever Mixture.—Zielewich uses—

℞. Salicylate of soda.....gr. vii–xv.
Gum julep.....ʒiijss Mix.

A large spoonful for children less than one year old. Give during the *accession* of the fever—not at the time of pyrexia.—*Idem.*

Cobwebs in Intermittent Fever.—[This remedy has already been several times mentioned in Spanish journals, and is now worthy of notice, since it has been used often enough to give reliable statistics.—TRANS.]

In *La Correspondencia Médical* Dr. Oliva gives twenty-six cases treated with *telarañas*, as they call it. Of these, twenty-two were cured by the powder, two with the powder and the tincture, and two with the tincture alone. The preparation is simple enough. The cobwebs are selected with care, and then shaken or beat sufficiently to remove the dust; then

wash and expose to the sun, after which they must be pulverized. The result is an ashy-colored powder, odorless and tasteless, insoluble in water, and only slightly soluble in alcohol.

From the examination of 119 cases published, Dr. Oliva draws these conclusions:

1st. Telaraña will cure intermittent malarial fever, whether quotidian or tertiary.

2d. Doses of grs. xxx in the adult and grs. xv in the child will generally cure at the second accession.

3d. Its action is less sudden than that of sulphate of quinine, for which reason, until we obtain more data, it should be employed with hesitation in *pernicious* intermittents.

4th. In consequence of its tastelessness, it is more easily administered than quinine, particularly to children.

5th. Relapses are less frequent when it is used than with any other drug.

Digestibility of Coffee and Sugar.—M. Leved in *La Mèdecin Practicien* gives the results of some experimental investigations made to determine the degree of digestibility of coffee and sugar. To a dog which had eaten 210 grammes of meat he admintstered 30 grammes of coffee in 15 grammes of water. After three hours he killed the dog, and found the mucous membrane of the stomach pale, discolored, and profoundly anæmic. The vessels of the internal superficies, like those of the periphery, were contracted; 145 grammes of the meat remained undigested; the coffee, then, had retarded the stomach digestion. The abuse of coffee produces dyspepsia; the English and Hollanders, who take coffee and tea in large quantities, are frequently dyspeptic.* Coffee elevates the cerebral functions; it has a pleasant and useful general effect, but the local effect is *generally* bad. M. Leved does not agree with physicians and medical chemists, who think that sugar is hurtful to dyspeptics; citing the case of one of his friends, a dyspeptic for two years, who did not take sugar, and was afraid of it, but he commenced taking 120 grammes daily without the slightest bad effect. Having given a dog 80 grammes of sugar after he had eaten 200 grammes of meat, he killed him after six hours, and found no meat in the stomach. The mucous membrane was red and widely congested. The hyperæmia of the liver was marked. After killing a dog which had eaten 200 grammes of meat and *no* sugar, he found 90 or 100 grammes still un-

*He might, with propriety, have added the Americans.

digested. Sugar favors the secretion of gastric juice. Sugared coffee is unfavorable to it.—*La Indepencia Medica.*

Prophylaxis of Syphilis.—Kuhorn gives the following conclusions as to the best means:

1st. A list of all prostitutes in every locality.

2d. Visits every four days by a physician, and specular examinations.

3d. Weekly inspections of all troops, army and navy.

4th. The admission of all venereals into the hospitals, without abolishing the special services.

5th. Good organization in the special hospitals.

6th. Increased facilities for public consultation, and free distribution of medicine.

7th. The absolute prohibition of every enticement on the street.—*Idem.*

Action of Mate on the Gases of the Blood.—In 1878, M. de Arsonval showed that the administration of large doses of mate produced phenomena of excitation on the sympathetic system. Couty has repeated his experiments as to its action, when given in infusion or after short ebullition. They agree that mate in large or repeated doses by the stomach or veins has a marked action on the gaseous elements of the blood changes. It modifies both arterial and venous blood, diminishing the carbonic acid gas and the oxygen in enormous proportions, corresponding to a third or half of the normal quantity.—*Revista Medico Quirurgica.*

Therapeutic Properties and Physiological Action of Cannabis Indica.—Since attention has been drawn to the use of this drug, especially for uterine affections, Dr. Michel proposes the following for metrorrhagia:

℞. Tinctur. cannabis indic.....grmms. xv
Syrupi.....ʒiij
Aquæ.....ʒxij

M. S. A large teaspoonful every five or six hours.

His article terminates with the following conclusions:

1st. Cannabis indica, whose action on the nervous system is indisputable, is destined to occupy an important place in therapy.

2d. Its action is double: in moderate doses excitant; in large dsses sedative and calmative, tending to produce muscular resolution and sleep.

3d. Employed with advantage in the majority of nervous affections, its utility has been demonstrated in chorea, tetanus, certain varieties of insanity, *delirium tremens*, and neuralgias.

4th. The uterine muscular tissue is most sensible to its action. Its influence prevents metrorrhagia, and its action on the uterine muscle leads the author to think that perhaps it may even supplant ergot.—*Gaceta Med. Catalana.—Revist. Med. Quir.*

Digitalis in Infantile Therapy.—Dr. Caradec says of digitalis, in a lecture devoted especially to infantile therapy and posology:

1st. The infusion of the powdered leaves, grs. iv–vij in ℥x of water, is an excellent preparation.

2d. Extract of digitalis, gr. $\frac{1}{65}$ to $\frac{1}{25}$ up to 2 or 3 years, gr. $\frac{1}{12}$ up to 5 years; gr. $\frac{1}{12}$ to $\frac{1}{9}$ over 5 years.

3d. The alcoholic tincture, gtt. v–x for less than 5 years; gtt. x–xv up to 5 years, and gtt. xx over 5 years.

4th. Syrup of digitalis, ordinary dose of syrups.

The indications for digitalis are of three orders:

I. *Cardiac.* There is no particular indication for it in endocarditis and pericarditis. Of particular states of infancy, it is especially useful, says Simon, in the irritation which presents itself particularly in the little hysterics, which should not be confounded with chlorotic palpitations. Another state is the transient hypertrophy of the heart, which is caused by rapid growth. Digitalis, with tonics and local revulsives, proves that this hypertrophy has nothing to do with that of compensation, although providential.

II. *Antiphlogistic.* The antiphlogistic indications are seen in all pyrexiæ and inflammations. The very best results are obtained by digitalis and tonics.

III. *Diuretic.* It is indicated in all visceral dropsies—especially in pleuritic effusions.—*Revista de Clinic Med., Revist. Med. Quir.*

The Tannate of Quinine.—(Becker and Hagenbach.) The excessively bitter taste of the sulphate of quinine is a formidable obstacle to its use, especially with children. The preparations of quinine are less bitter, as they are less soluble in the saliva; and the bi-sulphate being most soluble, is the most disagreeable. The tannate of quinine is insoluble in saliva, but very soluble in the intestinal juices, and easily absorbed in the alimentary canal. Becker found it in the urine within fifteen minutes after giving it. Probably the hydrochloric acid of the stomach transforms it into the muriate, and thus renders it more easy of absorption. Becker found it especially efficacious in pertussis. From several cases, he is able to affirm that it moderates the violence of the cough, and cuts short the disease. Bing thinks that it

should be given in two daily doses, of about gr. iss each, more or less, according to the age of the child. It should be put into a teaspoonful of water, with some sugar, when it is readily taken. Children keep up an excellent appetite, and seldom vomit after taking the dose, which is not the case with other preparations of quinine. The author says:

1st. The tannate of quinine should be made from pure quinine only, and not from a less active alkaloid.

2d. On account of the smaller quantity of the base, this salt should be given in quantities of less than half the strength of the crystalized quinine.

3d. To favor absorption, it is well to give to children a little wine with it.

4th. In all diseases in which the sulphate or other salts are indicated, the tannate is equally efficacious.

The author has tried the anti-pyretic qualities of the tannate in typhoid fever, scarlatina, and in a few cases of phthisis and erysipelas. These, of course, require larger doses than for pertussis—grs. xv for a child of one year, grs. xxx from three to five. He always gets better effects when followed by good wine.

Children take it better than the sulphate of quinia or salicylic acid. Its antipyretic action is indisputable; it is more quickly absorbed than the sulphate, the fever remits sooner, and the nervous phenomena are more rare and less intense, as is the case with the auditory phenomena. In typhoid fever, it modifies the alvine flux, with little disturbance of appetite.—R. M., *in Gaz. Med. di Roma.*

From the Spanish. By WM. G. EGGLESTON, M. D., Hampden Sidney College, Va.

Osteotomy—Its Indications and Results.—(Pradignac). Osteotomy is indicated—

1. In rachitic deformities of the inferior members in the period of osseous eburnation. Simple or cuneiform osteotomy should be practised, according to cases, in children of six to ten years.

2. Anchyloses. Of the lower jaw demands it imperatively; simple osteotomy by Rizzalli's method. In anchylosis of the hip in children it is contra-indicated by fracture of the neck of the femur. In the adult inter-trochanteric or sub-trochanteric fracture, osteotomy may be performed.

In anchylosis of the knee, with intimate, heavy union, the

cuneiform variety is the best method of treatment. It is also to be recommended in anchylosis of the ankle or tarsal articulations.

3. Fractures consolidated in a vicious manner, when extension or rupture has been unsuccessful.

4. In genu-valgum of adults, total osteotomy is preferable to partial. It should always be done under Listerism.—*El Génio Médico-Quirurgico.*

Etiology of Uræmia.—Dr. Aslaschewsky has made various experiments on dogs with the view of clearing up this question; tying the ureters and injecting large quantities of urine, urea, creatinine, etc., into the femoral vein. Urea is powerless in producing uræmia; creatinine gives doubtful results, but the inorganic components of urine, when injected into the blood in sufficient quantity, produce symptoms of uræmic poisoning and rapid death. He concludes that the insufficient excretion of the inorganic compounds of the urine, especially the salts of potash, is the prime cause of uræmia. —*Idem.*

Anti-Dyspeptic Laxative Powder.—(G. Sée).

℞. Cream of tartar.....
Calcined magnesia.....
Sulphur-sublimed and washed.....$\overline{aa}$ℨijss. M.

S. Dose: One to two teaspoonfuls in coffee every day.—*Idem.*

Dr. Luciano C. Armesto has treated a traumatic popliteal aneurism by antiseptic ligation of the common femoral.

Dr. Jardin has performed what he calls electrolytic urethrotomy. His instrument, to be attached to the battery, consists of a metal cylinder formed by a copper-wire twisted to give it flexibility, to be introduced in a gum sound; the coil terminates a stem which projects beyond the sound. The instrument is provided with a conductor, by which it is easily managed.

The inventor claims for the operation: 1. Facility and painlessness; 2. Bloodlessness; 3. Absence of bad after-effects, as in the ordinary operations; 4. No necessity of leaving a sound or catheter in the urethra after the operation; 5. Possibility of immediate micturition; 6. No necessity of discontinuing ordinary avocation, avoidance of secondary orchitis, urinary infiltration, etc. etc.—*Rev. de Méd. y Cir. Prácticas.*

Influence of Glycosuria and Paludism on Surgical Diseases.—Verneuil, after close study of the subject, concludes that:

1. Malaria frequently engenders glycosuria.

2. It may present itself under two forms; contemporaneous with the febrile accession, and as the fever will be only temporary, or more or less tardy, is independent of the febrile paroxysm and will be permanent. The second form is often followed by the first, and discontinues at the moment of substitution.

3. Permanent glycosuria attacks by preference vigorous malarial subjects liable to arthritis (in any form—as gout).

4. Benign glycosuria appears to be one of the benign forms of diabetes.

5. Intercurrent affection supervening in malarial diabetics may take certain characteristics of paludism or glycosuria, or both. Traumatic affections may excite or aggravate the two diatheses, but preferably the malarial.—*Revista Medicina y Cirúgía Prácticas.*

Nicarise has performed arthrotomy in a case of double hydrarthrosis of the knee which has obstinately resisted all other treatment. The patient was completely cured.—*Idem.*

Spermatorrhœa Following Grave Lesion of the Spinal Cord.—Fürbringer relates the case of a man sixty-nine years old who fell from a height and had immediate symptoms of paraplegia and complete anæsthesia of the lower part of the body, with total loss of reflex excitability. The penis was flaccid, and the urine evacuated on the following morning contained spermatozoa. Later in the day the penis was in a state of semi-erection, with a quantity of viscous liquid issuing from the meatus, abundant in spermatozoa. The urine deposited a thick sediment composed almost exclusively of seminal filaments. Reflex action was restored on the second day, but the paralysis and anæsthesia continued, as did the genito-urinary symptoms, until his death on the third night.

Autopsy disclosed fracture of the spinous process of the eighth dorsal vertebra, with several fractures of the body. The third dorsal vertebra was dislocated forward, and the body of that and of the fifth had comminuted fractures. The cord was injured at the level of the fourth dorsal. The genital apparatus was normal, but full of spermatozoa in all its parts.—*Idem.*

Borate of Quinine.—Dr. Ury, knowing the antiseptic effects of boracic acid in intermittents, combined it with amorphous cinchonoidine, and obtained a superior salt to the sulphate of quinine at a much lower price. Fifteen grains of the borate of cinchonoidine are equivalent to ten grains of the sulphate of quinine as regards effects.—*Idem.*

Is Tubercle a Manifestation of Scrofula?—Sr. Tapia, after careful observation, draws the following conclusions:

1. Scrofula and tuberculosis depend on remote analogous causes, having a common and reciprocal heredity, and can simultaneously exist in the same individual or the same family.

2. In both states the proximate is an anomalous state of the lymphoid cells, the lesions of tissue being analogous.

3. The termination of scrofulous lesions in tubercle is not constant, as they may be cured before the supervention of tubercle.

4. Tuberculosis may present itself exceptionally without previous macroscopical scrofulous lesions, but not without previous augmentation of white globules, which are primarily necessary in both lesions.

5. The treatment is very analogous if not identical: to re-establish the crasis of the blood by the physiological production and transformation of white globules.—*Idem.*

Excretion of Urine and Spermatic Fluid.—(E. Guérin.) After repeated experiments, with the view of determining the source of the ejaculatory power of the urethra, he is of the opinion that:

1. The bulbo-cavernous muscles are insufficient to perform the functions ascribed by physiologists.

2. They can only work by the intermedium of the blood contained in the bulb.

3. The blood compresses the mucous membrane of the upper back parts so as to accelerate the stream of urine and throw out the last drops.

4. The excretion of semen is always insufficient when the circulation of the blood from the bulb to the gland is interrupted.

5. If the theory of spasmodic contractions of the urethra was true, men could not be sounded when the spongy portion of the urethra is turgid.—*Idem.*

Genital Zone.—Dr. Letullé, studying a case of cerebal neuralgia of blenorrhagic origin, complicating the lateral lumbar zone, has made interesting observations in genito-urinary affections on the lumbo-sacral zone:

1. The zone may produce chronic affections of the genital organs or lumbo-abdominal neuralgia in the female, and chronic genito urinary affections or lumbo-abdominal neuralgia in man.

2. This symptomatic zone is localized under one of the

cutaneous branches of the lumbar or sacral plexus. It is comparable to genital herpes, but differs in its origin.

3. It may present the important character of herpes zoster.

4. Of the pathogenic conditions of the affection, nothing more can be indicated than one of the various traumatisms to which the genital organs may be exposed.

5. The symptomatic zone is seemingly determined by a reflex action propagated from an irritated viscus to the remote trophic centres of the lumbar region of the cord.—*Idem.*

Réyer, of St. Petersburg, successfully trephined a case of intracranial hæmorrhage under the left parietal eminence.

Total Extirpation of the Womb by Treund's Method.—Ninety-two cases of this operation have been recorded, with twenty-eight recoveries.

Treatment of Malignant Pustule.—Sambroski injects carbolized water ($\frac{2}{100}$). Between the injections he uses warm fomentations of carbolized water at 110°—105° F. This seems to be especially destructive to the bacteria of malignant pustule.—*Idem.*

New Treatment of Venereal Ulcers.—Dr. Teyguim uses the following treatment: After washing the chancre, so as to remove all pus and blood, and at the same time to irrigate it, he covers it with a thin sponge previously soaked in a solution of acetate of aluminum. When the surface of the ulcer becomes sufficiently white, which occurs in a few hours, the sponge is removed, and leaving the ulcer entirely uncovered, he dries it by means of a hollow rubber ball or a hand bellows, taking care that nothing shall touch it. As soon as dry he covers it with elastic collodion. Recovery takes place in two or three days.—*Idem*, *Vrach.* 49.

Cure of Rabies.—The *Revista de Medicina y Cirugiá Prácticas* records six cases of rabies treated by Gutierreg—five recoveries and one death. After thoroughly cauterizing the wounds, he administers 1.20 gramme chlorine in 360 grammes water in three doses. On the third day the chlorine was increased to 1.80 gramme. This quantity was administered to a child nine years old. In some of the cases 4.80 grammes of chlorine were administered in three doses. In none of the cases was there any doubt as to diagnosis.

Dynamic Electricity in Opacities of the Vitreous.—Giraud-Teulon places a high value on the constant current in this affection. He is of the opinion that they result from proliferation of the proper cells of the tissue, and the forms presented by their pathological anatomy respond to the various grades of activity of that proliferation. In the first grade

he places the hypertrophic form, and, in case of excessive circulation, the suppurative form. If, on the other hand, the process is indolent, there are regressive modifications. Agreeing with Baucheron, he thinks that there may be very decided opacity, without important alteration of tissue.

The Seat of the Bacteria in Lepia, and the Organic Lesions in that Disease.—Cornil, after much study on this subject, terminates his work in the following manner: "En resúme, the tissues examined were full of bacteria in various stages of modification. They presented themselves in various states—spores, micrococci, very small and more developed, presenting small grains in the interior, large filaments with a net-work of micrococci, etc. The lesion, as related directly to the bacteria, are divided into two series:

1. Leprous tubercles and leprous infiltration is characterized by large cells in great number, infiltrating the diseased tissue and full of perfect bacteria. When the leprous infiltration attacks a soft organ, as the liver, or when it attacks a natural cavity, as the scrotal, the bacteria become very voluminous. In the infiltrated tissues, pretty well diseased and ulcerated, when they attack the skin or the mucous membrane, the circulation becomes very much obstructed or may cease, and the capillaries are found full of bacterian infarctions.

2. In the greater part of the fibrous tissues, the bacteria make large filaments in the interstices of the fibres, presenting cells fixed to the fibrous tissue, whether altered or normal, resulting finally in sclerosis or increase of the fibrous tissue.—*Idem.*

Krishaber employs Paquelin's thermo-cautery (red heat) to remove hypertrophied tonsils. To modify nutrition he uses the galvano-cautery. The operation is almost painless.

Muscular Rheumatism.—(Duhamel.)—

℞. Cyanuret of zinc..... 50 gm.
Water of cherry laurel..... 10 "
Gum julep.....110 " M.

S. Dose.—Dessert spoonful every hour.

Venomous Deaths.—From official statistics, it appears that 21,990 people were killed by wild beats in 1880. Of this number, it is stated that 19,150 deaths resulted from snake-bite. Was that a good year for snakes?

Analyses, Selections, etc.

(By Jacob Michaux, M. D., Richmond, Va.)

Some of the Consequences of Phimosis and Adherent Prepuce. After brief reference to the antiquity of the custom of circumcision among the Jews and Egyptians, the writer (Editor *Louisville Med. News*) gives Dr. Sayre due credit for demonstrating these conditions as bearing a causative relation to irritability of the bladder and arrest of development of the lower extremities, etc., by reflex action, and proceeds to state that Dr. Sayre has not covered the whole ground.

"Dr. Barwell, in his Treatise on the Diseases of Joints (page 289) states that he has had forced upon his observation the coincidence of phimosis and hip-joint disease, which in his experience has been so frequent as to draw from him the opinion that it is not fortuitous, but is a physiological and potent relation—probably a cause to be ranked along with the strumous diathesis and local injury." His conclusions are based on a large number of cases and upon the observations of Mr. Baker, at Evelina Hospital, that Jews rarely have hip-joint disease.

"In Warren's Treatise on Hernia, just issued, there is quoted (page 17) an essay by Samuel Osborn, F. R. C. S., upon Phimosis as a Cause of Hernia in Infants." This essay was prompted by noticing the frequent co-existence of these conditions. "He thinks that the contracted preputial orifice offers such an impediment to the outflow of urine that extraordinary efforts of straining are occasioned," etc. "Again, Mr. Kempe is reported to have found that out of 50 cases of congenital phimosis, in 31 there was rupture."

"In the *Alienist and Neurologist* for Oct., 1881, Dr. E. W. Saunders reports four cases of reflex gastralgia dependent upon adherent prepuce." The first of these was relieved, after failure with the usual remedies, by circumcision; the second, by detaching the prepuce. "The other cases were of the same nature, though the family history was not so good."—*Louisville Med. News*, Jan., 1882.

The Abuses of the Drainage.—This is the title of an able lecture in the *Medical News* (Jan. 1882) by Stephen Smith, A. M., M. D., of Bellevue and St. Vincent Hospitals, N. J. The lecturer very truly says that too much draining is being attempted. In simple incised wounds, and after many minor

operations, which it is here useless to recapitulate, drainage is improper and often retards the cure. We merely desire to call the attention of the profession to this lecture because at this time this subject is so much discussed, and is growing much into favor with the ablest surgeons everywhere; hence, many are apt to run into extremes.

The Influence of Operations upon the Prolongation of Life and Permanent Recovery in Carcinoma of the Breast.—Samuel W. Gross, A. M., M. D., of Philadelphia (*Med. News*, January, 1882), believes that, in the early stages, this affection is purely local, and that complete extirpation then will eradicate the disease. "In view of the inevitably fatal progress of carcinoma of the breast," says Dr. Gross, "when uninfluenced by operation, the great questions to be considered from the standpoint of pathological histology are, whether the knife prevents—First, Local dissemination; Secondly, Lymphatic involvement; and Thirdly, The development of metastatic tumors?"

The answer to the first question should be affirmative in a certain proportion of cases, as the writer shows from the records. The answer to the second question is affirmative, as shown by the statistics, in a far greater proportion. In reply to the third question, it should be remembered that metastatic tumors are not always developed. "As the history of the disease shows, when left to itself, that metastases are absent in 30.70 cases of every hundred, and as they are wanting in 70 out of every hundred of the patients dead after operation, it follows that operations prevent implication of the inner organs in 32.30 cases out of every hundred."

"Having thus seen that local extension, reproduction in the glands, and the formation of metastatic tumors may be obviated by the removal of the breast, we are justified in inferring, first, that life may be prolonged; and, secondly, that a permanent recovery may be effected by surgical intervention."

Dr. Gross makes one statement that will surprise many, viz.: "That the absence of glandular implication does not afford an absolute guarantee that secondary deposits are not already present in the viscera, since in one example out of every eight, metastatic tumors are formed without the intervention of infected glands."

Dr. Gross finally draws the following conclusions:

"1. That surgical intervention in carcinoma of the breast tends to retard the progress of the disease by preventing

local dissemination, implication of the associated lymphatic glands, and the development of visceral tumors.

2. That local reproductions do not militate against permanent recovery, provided they are freely excised as soon as they appear; and that lymphatic involvement does not forbid operation, since infected glands were removed in more than one-third of the examples of final cure.

3. That subjects are almost, without exception, safe from local and general reproduction if three years have elapsed since the last operation.

4. That the risk from operations is outweighed by the benefits which accrue from them, since they not only add twelve months to life, but also cure more than one-half as many patients as they destroy.

5. That all carcinomata of the breast, if there are no evidences of metastatic tumors, and if thorough removal is practicable, should be dealt with as early as possible by amputating the entire mamma and its integuments, dissecting off the sub-jacent fascia and opening the axilla with a view to its exploration and the removal of any glands which were not palpable prior to interference."

The Gestation of the Elephant.—It may not happen that any reader of the *Monthly* will be called upon, as was Dr. Chapman, to deliver an elephant; still it may not be out of place to quote Dr. Chapman; "The young elephant was born May 9th, 1880, exactly twenty months and twenty days after the last copulation, or twenty-one months and fifteen days reckoning from the first one. The fixing of the period of gestation of the elephant at 630 to 656 days is another interesting illustration of modern investigation confirming the statement made by that most profound thinker and careful observer, Aristotle."

Chronic Pyæmia Resulting from Gonorrhœa.—In the Original Department of Walsh's Retrospect for January, 1882, is reported by Surgeon-General Philip S. Wales, U. S. N., most carefully, a case as above stated. Dr. Wales will follow up the report with a paper on pyæmia in a future issue of the *Retrospect*. The *Retrospect* possesses a value far beyond that of any like journal. Dr. Walsh is a conscientious and painstaking editor, and the value of his selections is increased by the fact that he is a practitioner of eminence.

Fiddle-Strings as Bougies.—In a case reported by Dr. F. E.

Daniel (*Trans. Miss. Med. Asso.*, 1881) of a slight stricture, failing to insert the smallest bougie, used a small fiddle-string; this proving successful, larger strings were used, until the urethra was sufficiently dilated to admit bougies and a Nèlaton catheter. The fiddle-string rapidly expands when inserted.

The Tongue.—By J. Milner Fothergill, M. D. Much may be learned from accurate observation of the tongue; how much, a few old practitioners almost alone can tell. In the treatment of phthisis, inspection, minute and scrutizing, of the tongue is far more important than the wielding of the stethoscope, however skillfully. The one tells much of the amount and nature of the disease, the latter gives information, often priceless, as to the precise line of treatment to be adopted; for the tongue is the index of the state of the intestinal canal, and if the *primæ viæ* are disordered, they must be put right before any other therapeutic measure can be safely adopted.

Tell the patient to put out his tongue fully, so that the circumvellate papillæ can be clearly seen; it is no use to study the tip. If the patient is an infant, Sir William Jenner's plan of placing a drop of fluid, especially if viscid, as syrup, upon the chin, is well worth following. A tickling sensation is produced, and the little patient tries to remove the cause of irritation with its tongue. The condition of the tongue can thus be studied without much disturbance to the child. The manner of protrusion is instructive. In the typhoid condition of fevers, and in some cerebral affections, the request to put out the tongue has to be repeated, and loudly, before the patient does as is requested; and similar reiteration is requisite to induce its withdrawal. "It is a curious fact that patients will frequently protrude the tongue when they cannot be made to do aught else, owing to the state of their mental faculties." (Flint.) Then tremulousness of the tongue indicates alcoholism, and, less frequently, lead or mercurial poisoning. Tremulousness of the tongue may denote muscular weakness. When seen in the early stages of typhus, or typhoid fever, it indicates a grave condition of bad prognostic omen. In advanced stages, the tongue is protruded slowly and with difficulty, indicating impaired power over the muscles. In hemiplegia, the tongue, when protruded, turns its apex to the paralyzed side, from diminution of power in the genio-hyoglossus muscles of the affected side. In bulbar, otherwise glossolabial paralysis,

the capacity to protrude the tongue is impaired or lost. In facial paralysis, without hemiplegia, this loss of power to protrude the tongue tells that the mischief is central, and within the skull; and not peripheral, or Bell's palsy.

Dryness of the tongue is found in pyrexia, whether the fever be specific or symptomatic. It is also dry in diabetes, and other conditions of polyuria, and in some of the functional disorders of digestion. It becomes dry and hard, as well as brown, from the accumulation of dead epithelium cells upon it in the typhoid condition and in uræmia. When the mouth is kept open, it becomes dried, as is seen in some cases of dyspnœa. Then it is edentated; and marked by the teeth in conditions of debility, from menorrhagia, chronic diarrhœa or acute prostration, however induced. Then as to the state of the tongue known as "coated" or "furred." This is constant with some individuals who are well and strong; and a furred tongue, especially in the morning, is common with heavy smokers. But, usually, a furred tongue denotes disturbance of the digestive organs, or the oncome of acute disease, especially the specific fevers. When found with shivering fits, this condition of the tongue tells of coming trouble. When the coating has a distinctly yellow or brownish hue, there is usually a bad taste in the mouth in the morning when awakening; the taste and the color are both due to tauro-cholic acid. This is denied by some authorities, who say there is no connection betwixt the state of the tongue and the condition of the liver; but the great bulk of medical experience is dead against them. The fur on the tongue consists mainly of dead epithelium cells, mucus, particles of food, and dust inhaled by the breath. As the rude index of the condition of the gastro-intestinal canal, the state of the tongue furnishes valuable information. Where the coat is thick, it is evident that absorption of food from the intestines must be very imperfect through the layer of epithelial cells; and our efforts are directed to remove this obstructive layer. Consequently, we inspect the tongue in acute disease, and in convalescence, in order to ascertain, with such an approach to accuracy as the tongue can tell us, whether the state of the intestinal canal is such as will permit of the assimilation of the injesta. When the tongue cleans, then we know assimilation is going on satisfactorily. When the tongue remains coated, we aid the natural efforts to remove the fur by a mercurial laxative. Repeated free purgation without a mercurial, often leaves the tongue as thickly coated as before; and a few grains of calomel pro-

duce a clean tongue in a few hours. At other times, a dose of calomel may get the credit of cleaning the tongue, when it is due to a natural process. I remember well the case of a boy who had been threatened with enteritis. He was progressing nicely, but the tongue did not clean; I spoke of giving him a powder, but counter-ordered it. Next day he had two free semi-fluid motions, and the tongue was quite clean. Had the powder, which would have consisted of three grains of calomel, been given, it would unquestionably have got the credit of producing the change. This was years ago, in the early days of general practice, but the lesson has never been forgotten. It is always well to see the tongue clean; and in private practice more attention is, and has to be, paid to the state of the tongue than is given to it in hospital practice usually. In acute disease, the mucous membrane commonly is unequal to shedding its dead epithelium, and when the shedding occurs, it is a good omen of returning vigor. In protracted illness, the fur may be shed and reproduced again several times. After acute disease, and especially fevers, the fur may disappear bit by bit, commencing at the tip, and creeping along the edges, leaving a thick coat up the mesial line and upon the base, which in time also disappears. Such clearing up of the tongue is of the best prognostic omen, and tells of uninterrupted convalescence. In scarlet fever, the tongue assumes a "strawberry" appearance; sometimes the red papillæ stand out on a red surface, like a ripe, red strawberry; at other times, the red papillæ stand out upon a coat of fur like the seeds of an unripe white strawberry. A furred tongue is manifested in many cases of dyspepsia, especially when many "by-products" of digestion are formed in the digestive act. Both in indigestion and artificial digestion there are by-products formed as well as peptones, and these "by-products" are offensive and objectionable. In some cases of acid heartburn the chief offending agent is butyric acid. In almost every case of indigestion with a furred tongue, constipation is present, and must be considered in therapeutic plan. Here nothing but a continuous course of laxatives, and occasionally acute purgation at intervals, will be of any service; and the treatment must be continued, no matter how long, until the system rights itself. In some cases the patience of patient and doctor becomes severely tried, but perseverance brings with it at last its reward. All mechanical means of cleaning the tongue, as scraping it, or rubbing it with lemon-juice or vinegar, are well enough for the local sense of cleanliness

and comfort, especially in pyretic states, but they are utter rubbish and nonsense as to cure, which depends upon other measures altogether.

Then the tongue may be furred along one side only, or may be raw and irritated, or even ulcerated, by a decayed tooth with a jagged edge. At other times the epithelium of the tongue is stained, as by drinking elder wine, sucking a piece of licorice, or chewing tobacco; or it may be discolored by some preparation of iron. These modifications of its appearance are more distracting and puzzling when the tongue is coated with fur pretty thickly.

The "raw" or "bare" tongue. This condition of the tongue has not, in my experience, received from medical writers a tithe of the attention it deserves to have paid to it. Here the superficial structures of the tongue are denuded more or less completely of the natural epithelium. In convalescence from acute conditions, where the tongue has been coated, sometimes the tongue is abnormally red and imperfectly covered with the epithelium, and here a coat is apt to form again. (Flint). Both in acute or chronic conditions, the absence of the normal epithelial covering, whether slight or considerable, should receive the keenest attention of the practitioner. As long as the tongue is "raw" or "bare," the line of treatment to be followed is that of bland food, with sedatives to the gastro-intestinal tract, as bismuth, with alkalies, or opium, or both. So long as this condition remains, tonics are useless and are not digested. At the risk of being charged with dogmatism, I venture to insist upon this. Perhaps it is in phthisis, of all diseases, where this rawness of the tongue excites one's apprehensions; at least it is of all semeia the one I personally dislike most. It is not usually complete over the whole tongue, but lies as a large patch in the middle of the tongue, the irregular edge usually extending further on one side of the mesial line than on the other. We have every reason for supposing that this condition of the tongue is significant of the state of the unseen portion of the gastro-intestinal canal; and the absence of epithelium interferes with assimilation. This it is which excites one's apprehension in all wasting diseases.

"After a meal, the epithelium cells of the villus are found crowded with fat. Since the stiration of the hyaline border of the cells is not due to pores, as was once thought, the particles must have entered into the cells very much as foreign particles enter the body of an amœba. The epithelium may, in fact, be said to eat the fat." (Michael Foster.) If then,

the epithelial layer be defective from absence of epithelium, or from epithelial cells being imperfectly developed, and therefore functionally defective, fat cannot be properly absorbed; and that absorption of fat is of all things what we especially desire in wasting disease. Not only is the epithelial layer important in the absorption of nutritive material from the food in the intestines, but it is essential to secretion. "The food, in passing along the alimentary canal, is subjected to the action of certain juices which are the products of the secretory activity of the epithelium cells of the alimentary mucous membrane itself, or of the glands which belong to it. These juices (*viz.*, saliva, gastric juice, bile, pancreatic juice, succus entericus, and the secretion of the large intestine), poured upon and mingling with the food, produce in it such changes that, from being largely insoluble, it becomes largely soluble, in an alkaline fluid such as blood, or otherwise modify it in such a way that the larger portion of what is eaten passes into the blood, either directly by means of the capillaries of the alimentary canal, or indirectly by means of the lacteal system, while the smaller part is discharged as excrement" (Foster.) Now, if "the epithelium cells of the alimentary canal play this important part in the digestive act, it is quite obvious and abundantly clear that deficiency in number or perfection of these epithelium cells must exercise a deep and profound influence upon digestion, absorption, and nutrition." That all the practitioner's energies should be bent toward the restoration of the epithelial layer to normal perfection, or the best approach thereto, is intelligible enough; and the attention paid to the *primæ viæ* by our predecessors was amply justified by its importance. It is, too, comparatively easy to get rid of the layer of dead epithelium cells of the coated tongue; but it often taxes all our resources to restore the epithelial coat to its integrity where the tongue is "raw" or "bare." Yes, and sadly too often, our best efforts are futile and unproductive of good result! When the "bare" tongue is the index of a deficient epithelial layer in the alimentary canal—and no other index do we possess—the first duty of the practitioner is to do his utmost to restore it to the normal condition. How this is to be achieved will be considered hereafter. When, then, under appropriate treatment, the tongue assumes its normal appearance, and the epithelium grows once more freely upon it, then we know the digestive powers are returning, and that we may venture on tonics, and more food of less restricted character. A shrewd practitioner, young or old,

will always study the condition of the epithelial layer of the tongue carefully, sagaciously, with a full knowledge of what is revealed by the condition of that part only of the alimentary canal which is open to our vision. So long as the condition of "raw" or "bare" tongue continues, so long must our therapeutic measures be directed to the restoration of the epithelial layer of the alimentary canal to its integrity—or the nearest attainable approach thereto. Then the tongue may present a "beefsteak" appearance when it is denuded of epithelium, as it is apt to do when the brown fur of the typhoid or uræmic condition has been shed The system is equal to shedding the dead epithelium, but it is not quite equal to the production of a new layer of perfect epithelium.

The epithelium layer of the tongue is often suggestive of other conditions than those of the alimentary canal. There is a peculiar silvery sheen of the epithelial covering of the tongue in many cases of menorrhagia; especially when the tongue looks swollen and shows the indentation of the teeth. I have nothing to say as to the "how" of this association; but it is certainly sufficiently common to give this condition of the tongue a distinct diagnostic value.

In relapsing fever, there is often a small triangle on the tip of the tongue, much cleaner or "rawer" than the rest of it. Each side of this equilateral triangle is about half an inch in length. I have seen it both here and in Germany.

Then the surface of the tongue may be altered. The mucous membrane may be ulcerated, as in stomatitis. Glossitis it is not my province to describe. Or it may be fissured. Deep rugour fissures are very suggestive of syphilis. So is a large bare patch with or without fissures, without acute disturbance of the health; while patches of syphilitic psoriasis, where the affected epithelial scales are shed and a bare patch is left, are not at all uncommon. The tongue may be the seat of a chancre, which must be discriminated from cancer; this is done by the history, the age, and the condition of the glands of the neck. When inspecting the tongue, other evidences of syphilis may be furnished by the state of the pharynx, or soft palate. Then the tongue may be indented by the teeth. "Indentations on the margins may be produced by the pressure of the teeth. These occur if the organ be swollen; otherwise they simply show that it has remained in contact with the teeth for a considerable time. In health, during wakeful hours, it is frequently moved, not remaining, except momentarily, in the same place. The indentations due to diminished movements denote mental heb-

etude. The tongue occasionally presents fissures or cracks in the course of fevers, and these sometimes continue into convalescence. Cicatrices are observed in persons subject to epilepsy. as the result of wounds inflicted by the teeth during the paroxysms. These may be useful in determining that paroxysms which a patient has experienced were epileptic in character. Coldness of the tongue belongs to the moribund condition, without reference to the disease, and it is a striking symptom in the algid stages of epidemic cholera." (Flint.)

A tongue fissured not deeply, but with many little fissures over its surface, I have very commonly noted in persons who drink their tea very hot; but it is not invariably, though commonly, so associated.—*Leonard's Illus. Med. Journal.*

Locomotor Ataxia and Sewing Machines.—Gynæcologsts have long pointed out numerous derangements of the female pelvic viscera, directly traceable to the continued or immediate use of the sewing machine. It seems, however, that besides uterine troubles, other grave disorders may arise from the same cause. In the *Union Medicale* M. Octave Guelliot reports two cases of locomotor ataxia in women, which he attributes to the habitual use of the sewing machine. His theory is that the treadle-movement produces a sort of concussion, which is gradually diffused throughout the spinal cord; he believes that hysterical women are most apt to be thus affected. The first symptoms are sharp shooting pains in the lower limbs, which tend to spread rapidly upwards, are relieved by rest, but return when the treadle work is resumed. M. Guelliot argues strongly for the discontinuance of the treadle and the introduction of some other mechanical motor.—*Canada Med. Record*, April, 1882.

Dermatolysis.—A number of prominent medical men were recently invited to the Ashland House to make an examination of Herr Haag, the "India-rubber man," who was lately at the Westminster Aquarium, and is now on exhibition in this city. It is a case of dermatolysis or loosening of the skin, and almost unique. Haag was born in Erlangen, Bavaria, and he has spent a considerable time in Vienna, where the remarkable elasticity and mobility of the skin attracted much interest among the dermatologists. He is about thirty-two years of age, and has several children, none of whom inherit the father's peculiar cuticle. On this occasion he first took the integument of his chest in both hands, and having

drawn it upwards easily put it in his mouth. The skin of his arms and legs was then stretched out until he looked like a bat or flying-squirrel, and he was also able to draw out that of his nose and chin to a most extraordinary extent. The skin upon his ears, hands, and feet also exhibited the same elastic quality. When he was in Vienna a portion of integument about four inches in length was removed from the right arm, and it was found that there was a lack of subcutaneous fat and cellular tissue, which permitted the skin to move very freely over the muscles. Since his appearance at the Ashland House, Herr Haag has been presented to the students of the University Medical School and College of Physicians and Surgeons by Professors Piffard and Fox, respectively.—*Boston Med. and Surg. Journ.*, April 13, 1882.

A Sedative Emmenagogue.—For a day or two antecedent to the actual commencement of the catamenial flux, not infrequently women suffer acute pain in the pelvic region, doubtless due to hyperæmia and hyperæsthesia of the reproductive belongings. To obviate this I have found no treatment give such satisfactory results as the following:

℞ Codeæ sulphatis.....gr. j
Chloral hydrastis.
Ammonii bromidi.....āā gr. xx
Aquæ camphoræ.....ʒj

M. For one dose. S. Take at bedtime.

A repetition of the dose at *that* period is rarely necessary. In some cases a warm sitz-bath of fifteen minutes duration before retiring, is a valuable adjuvant.—*Western Med. Rep.*, March, 1882.

Divorce and Mental Alienation.—MM. Blanche, Charcot and Legrand du Saulle have been heard by the commission on divorce now sitting in Paris, for the purpose of recording their opinion on the question whether insanity should rank amongst the reasons for divorce. A writer in the *Gazette Hebdomadaire* for February 17th, who signs himself "A. D.," states that they answered the question in a negative sense, with some reservations, which, however, he does not specify. The writer approves of this conclusion, and goes on to state his reasons, as follows: The most general consideration to be brought into relief is, that insanity is a disease; and that no disease, even impotence, is a reason for dissolution of marriage. The lunatic is a man suffering in his moral and intellectual health, as others suffer in their physical health.

He deserves the same or even greater care; only there may be needed to take precautions against the effects of his mental loss of balance; for which, however, there is no need either of divorce or separation. In the second place, chronic insanity, although often incurable, is not necessarily so; and it would be difficult to imagine a more cruel and unjust situation than for a married person to return to the domestic hearth after an unexpected recovery, and to find the other party to the contract in the bonds of a fresh marriage. The form of dementia known in France as *folie circulaire* frequently yields these surprises; and we are told that M. Blanche cited a remarkable example before the commission, in which the insanity had lasted sixteen years. General paralysis, it is true, is incurable; but it will not be denied that it may show such long and complete remissions that the most experienced practitioners may be inclined to consider them definite; and that, in any case, the patient must be restored to his or her family. As to those cases in which the mischief makes almost continuous progress, and distinctly authorizes a fatal prognosis, M. Charcot is stated to have laid down the dictum that the only conduct to be prescribed to families is to redouble every possible attention, and to have patience. As to epilepsy, nothing is more common, especially in young persons, than to meet with it limited to one or two attacks, never to show itself again. It is these cases specially which Foville thought were connected with the eruptions of the large molars or wisdom teeth. There are epilepsies from worms; and the author cites the case of a librarian in whom the attacks entirely disappeared during the twelve or fifteen years he lived after evacuating a tænia. The writer of the article, whence we take these considerations on an interesting and important social question, points out that it is by no means uncommon to meet with persons sufficiently wanting in the moral sense to speculate by marriage on the diseased condition of their fellow creatures. Those affections which are slow in presenting their true character, but are not unfrequently recognizable in their early stages, as phthisis and insanity, are particularly adapted to this kind of calculation. The prospect of divorce would be yet another encouragement, and so much the more tempting, so far as regards dementia, that it would be much more easy to accomplish an act of spoliation in the case of a person of weak intellect after marriage.—*Brit. Med. Jour.—Med. Gazette,* April 15.

The Treatment of the Different Forms of Nervous and Neuralgic Headache.—William Henry Day, M. D., Physician to Samaritan Hospital for Women and Children, London, says that it is important to recognize the fact that nervous headache, or migraine, is purely neurosal, and not dyspeptic in its origin. The violent vomiting which often follows prolonged nausea is attended, it is true. with the vomiting of bile, but this is no indication in these nervous headaches that the liver is congested or even disordered. It merely points to the violence of the retching which causes the contents of the duodenum to regurgitate into the stomach, as in violent sea-sickness. There must be other accompaniments of hepatic disorder, as sallowness of skin, foul tongue, or clay-colored stools, which altered bile, to prove that the hepatic functions are primarily disordered. The more the brain is attacked as the source of the evil, and the less the stomach is worried with mercurials and aperients, the better, for by irritating the alimentary canal the general health is lowered, and the patient's increasing debility renders him or her the more liable to frequent recurring attacks. Put aside, then, the liver, and the stomach, and the intestines as the origin of the evil, and seek its explanation in some excitement or other alteration in the cerebral ganglia, for it is essentially cerebral. All successful treatment must be based on this understanding. The intimacy between nervous and neuralgic headache is so close that we have, however, to remember that nervous headache, which may be entirely frontal for years, does frequently become, with the lapse of time, trigeminal, or one-sided.

The treatment must be considered from two points of view: 1. That during the paroxysm; 2. That during the interval of freedom from acute suffering.

Treatment during the Paroxysm.—This will in some measure depend on the severity and situation of the pain. If frontal and moderately severe the patient wanders about the house in misery, and is unable to do any thing. All the functions of the brain are disturbed, and life is almost unendurable. It is difficult to know how best to approach the enemy, for the remedy that will do good at one time will fail at another, and no amount of experience in the same individual even appears to help us. In some cases relief comes from the constant application of cold to the head when the pain is frontal, and the vessels are full and throbbing. Cold seems to contract the dimensions of the cerebral vessels by its actions on the nervous ganglia. The head should be ele-

vated on a hard pillow, and a bottle of hot water applied to the feet so as to draw the blood toward the lower extremities. A nervous headache may now and then be cut short by a dram of the syrup of chloral, and this may be safely given if the head be hot and the pulse good—if, in short, there be vascular excitement, and the vessels of the brain are too full of blood. I have known this remedy bring relief over and over again to the same sufferer, either within a very short space of time or on awaking after sleep. If the pulse be small and contracted and the vessels of the head are full and throbbing—if in fact the capillaries are in a state of tension, while the hands and feet are cold, it is a good plan to put the patient into a warm bath at 97° for ten minutes, and then to bed. It is astonishing the relief this simple remedy sometimes brings, the skin becoming moist, the pulse softer and fuller, and the "opening and shutting" feeling in the head is diminished as the force of the circulation is lessened.

I may briefly direct attention to *guarana*. Now I cannot say a great deal in its favor, because I have not been very successful with it, and I seldom employ it. In many cases I have found that it has aggravated the nausea and vomiting, and rather increased than lessened the headache, while in a few cases it has proved serviceable, and cut short the headache when other remedies had failed. Perhaps it is that I have employed it in rather severe cases, which do not readily yield to any remedy, whereas in some mild cases it might prove beneficial. A few persons tell me they are never without the powders, taking some occasionally in a little water or tea when they are going out, and that it always averts a severe seizure.

If the pain continues in spite of all drugs taken by the mouth—if it defies emetics, stimulants, counter irritants, absolute rest, cold to the head, and warmth to the extremities, then the patient at any risk and at any cost must have relief from suffering. Acute pain, depriving the patient for several nights of sleep, cannot go on without inducing great nervous exhaustion, especially to women of anxious temperament, whose nervous power is not strong.

Chloroform inhalation will occasionally relieve a severe nervous and neuralgic headache when one drug after another has been tried in vain. It does it by inducing sleep. The patient has perhaps endured the most miserable discomfort in the head for a day or two, and the usual remedies afford no relief. Then toward night the pain is aggravated, and the patient cannot obtain rest. A few drops of chloroform

should be sprinkled on a piece of spongio-piline, and then cautiously inhaled. It ought only to be administered by a competent person, and the sufferer should not be allowed to do it of his own accord. Such a practice is about as bad as dram-drinking. I should consider myself very culpable if I allowed patients to do it themselves. It should only be attempted by a medical man, who would be as careful in its administration as if he were sending a person to sleep for a surgical operation. A person may be kept slightly under its influence for an indefinite period, and safely so, if the ordinary precautions are observed.

The utility of hypodermic injection of morphia in the acute forms of nervous and neuralgic headache is, in my opinion, under-estimated by the profession. It deserves to be placed in the first rank of all remedies for the relief of this agonizing affection when it has reached a certain crisis. It is impossible to over-estimate its value when there is nothing in prospect but an increase of pain, and a degree of restlessness and irritability over which the patient can exert no control whatever. Then the wakefulness adds to the exhaustion and increases the pain. If the injection only brings temporary relief, it enables the patient to recover strength a little, and to bear the return of suffering with some degree of fortitude. If not much exhausted it never makes her really worse, but it repeatedly diminishes or even cuts short the paroxysm altogether. Experience fully justifies me in saying that the hypodermic injection is most safely employed when the circulation and pulse are good, before the pain has caused much exhaustion. Given under these circumstances the patient, who just before has been twisting and rolling about in agony for hours, will turn round in bed and fall off to sleep till morning, dozing perhaps the entire day following, being happy and composed, and scarcely caring to be disturbed to take a morsel of food. Still there are cases that yield to the subcutaneous action of the drug when there is great sickness and prostration, and the extremities are cold and the pulse is weak. If the patient has reached this terrible stage, I believe we ought to use it in very small quantity, watching the patient meanwhile to guard against a comatose condition. One-sixth to one-fourth grain of morphia and one-sixtieth to one-thirtieth grain of sulphate of atropia will often send off a patient speedily into blissful rest. I usually employ double this quantity to a patient who has been a miserable victim to these nervous and neuralgic headaches. It has a most magical and instantaneous effect. The

morphia when it acts in this way appears to lull and tranquilize the nervous system, to induce sleep at once, and that sleep is both restorative and refreshing. The atropia obviates the tendency to sickness, and is a most valuable addition.

The primary effect of the hypodermic injection is sedative—a condition in some degree retarded, if not in a few cases prevented, when the pain has so prostrated the system as to induce nausea and vomiting, or even collapse. Then the patient rests for a few minutes, or obtains a little sleep, but is soon disturbed by an increase of vomiting and return of the pain. Vomiting interferes with the action of the morphia by its partial ejection. A large portion, however, is absorbed into the blood, and by that means it exerts its action on the nervous centers.

In carefully considering the subject, it is clear that there can be no valid objection to the employment of the drug, for acute pain must not be allowed to persist; this is the first symptom that demands relief, and it is of supreme importance to check it.

The substantial point is, Does the remedy cut short the paroxysm? It does unquestionably. Is there any condition that contraindicates its employment? No! There are certain drawbacks to the use of the drug which ought to be kept in mind. If the patient has been suffering for many days, and there is much pressure and exhaustion; if the pulse be slow and weak, as it often is, and a very limited supply of food has been taken, then it must be used with caution. But I maintain that we cannot stand by and see the patient hour after hour in pitiable agony, and do nothing.

2. *Treatment during the Interval of Freedom from Acute Suffering.*—This consists in endeavoring to correct any disorder of the general health, for until this has been attended to no special drug for the relief of the head will be of any service. If there be menorrhagia, or bleeding piles, leucorrhœa, uterine or ovarian disease, these conditions must be first attended to, and until they are relieved, the headache is certain to continue. I cannot now enter into details, but they will be apparent to every intelligent practitioner. The avoidance of fatigue, excitement, and all other common causes of headache, with a rigid dietary, is sometimes efficacious in warding of these attacks. If the brain be overtaxed in any way, and certain articles of diet and fermented liquors are indulged in they disorder the stomach, and forthwith throw the nervous system off its balance.

Now, change of place and scene has a most important

bearing on the treatment of nervous headache. Some persons suffer mostly at home where they cannot escape the daily anxieties and duties of life; and others suffer when on a damp soil and during the prevalence of cold winds.

Having made our diagnosis of the particular form of headache, and selected our remedy, we ought to give it a fair trial. A remedy should not be lightly abandoned in chronic disease, for over and over again it will be found to cure when persevered with and the system is slowly brought under its influence. The tendency is to hastily exchange it for some other if it fails to do good at once, but this is an errror to be avoided.—*Medical Times and Gazette.*—(*Louisville Medical News*, January, 1882.)

Book Notices, &c.

Hand-Books for Physicians: Philadelphia: P. BLAKISTON, SON & CO.

"Realizing the demand for well-written hand-books at a low price * * * * upon the branches of Medicine and Surgery, adapted to the wants of junior practitioners and students, as well as physicians of advanced practice * * the publishers are re-issuing many of their books at a greatly reduced price. The books are of such size and shape as render them worthy of preservation in the library." The publishers have kept their word. Their books are well bound, the paper is good, and, best of all, the type is large and clear. Their uniform low price—cloth, $1.25, paper, 75 cents—places them in reach of any one.—WM. G. E.

[We take special pleasure in calling our readers to the book notices hereto appended. The writer, a physician of great learning and experience, says, "I enclose some reviews of Hand-Books, not for the purpose of puffing the publishers, who do not know me, but to let some of my country confrères know what they can buy at a low price, and where to buy. I came very near not getting any, because I thought them *too cheap*, but they are excellent in every respect." We have examined these Hand-Books, and do endorse what is said by our correspondent.—ED.]

I. Diseases of Women—Clinical Lectures. By LAMBE ATHILL, M. D., Consulting Surgeon to the Adelaide Hospital, Dublin. Fifth Edition.

This is not a theoretical or speculative work, dealing with improbable or impossible hypotheses, as is the case with so

many of our latest works on gynæcology. It is a practical book, full of common sense—*condensed* common sense we may say—and put in such a manner as to prove the author a man of large attainments and much personal experience. To the busy general practitioner with little time for reading the larger works on the subject, it will prove invaluable.

II. Day on Headaches—The Nature, Causes and Treatment of Headache. By WILLIAM HENRY DAY, M. D., Physician to the Samaritan Hospital for Women and Children. Third Edition. 12mo. 322 p.

"The subject of headache is of manifest importance, because it claims so many sufferers and is surrounded by so many difficulties. The pathology is obscure, the diagnosis perplexing, the remedies uncertain. Headache is a disorder of the utmost frequency, and yet there is none which more taxes the experience and scientific knowledge of the physician, or requires closer observation in elucidating its nature and removing its obscurity. * * * Are the brain and its vessels deficient in the supply of blood? Is the circulation contributing due supply of arterial nourishment? Or is it in excess, and the vessels overloaded?"*

Dr. Day has struck the "lost chord" in this book. How few physicians would feel entirely safe in treating a case of headache! Yet headaches are a matter of every day occurrence, and deprive the sufferer of the capacity for work more surely than a great many more serious diseases.

The author, in his introduction, gives the following excellent classification of the varieties of headache:—(1) *Headaches depending on causes within the brain—intra-cerebral headaches.* (a) Headache from cerebral anæmia. (b) Headache of cerebral hyperæmia. (c) Sympathetic headache. (d) Dyspeptic or bilious headache (or sick headache). (e) (1) Headache due to cerebral congestion, or congestive headache. (2) Headache from plethora and increased vascular action. (f) Headache from exhaustion or from some peculiar change in the cerebral tissue—nervous headache (this is sometimes known as sick headache, but the stomach is only secondarily affected). (g) Nervo-hyperæmic headache. (h) Arthritic or gouty headache. (i) Toxæmic headache. (j) Organic or structural headache. (k) Headaches of advanced life.

(2) *Headaches depending on causes external to the brain—extra-cerebral headaches.* (a) Rheumatic headache. (b) Head-

*Extract from Author's Preface.

ache from affection of the periosteum. (c) Neauralgic headache.

(3) *Headaches of childhood and early life.*

The author adheres to his excellent classification throughout the book. The causes, symptoms and treatment of each variety is clearly stated, and in as few words as possible, the writer apparently recognizing the fact that brevity is the soul of good sense as well as wit.

In the chapter on Headaches of Childhood and Early Life are to be found some very excellent remarks of the hygiene of childhood, school hygiene and kindred matters, and the author shows that permanent damage may result from the forcing system, so common in the schools. The book concludes with a list of 116 formulæ, many of which have given good results in the hands of the author.—Wm. G. E.

Diseases of the Stomach, and the Varieties of Dyspepsia, with Diagnosis and Treatment. By S. O. HABURSHON, M. D. Third Edition. Revised. 324 pp.

Thorough classification is one of the foundation stones of successful study, and still more of successful writing of a subject. Our author has tacitly recognized this fact, and begins by a systematic and clinical classification of dyspepsia—one that takes cognizance of the *causes* of the disease rather than the symptoms presented. He considers, first, atonic dyspepsia. 2d. Dyspepsia from congestion, as seen in chronic pulmonary, cardiac, bronchial, or hepatic disease. 3d. Inflammatory dyspepsia, from irritants, excesses, etc. 4th. Hepatic dyspepsia, or "bilious indigestion." 5th. Rheumatic and gouty dyspepsia. 6th. Dyspepsia connected with renal disease.

"In the varieties of dyspepsia thus alluded to, the mucous membrane and its secretions are especially affected, there being either deficiency or excess in the gastric juice, or its character being changed by defective secondary assimilation or continued congestion." 7th. Dyspepsia from mechanical interference with muscular movements of the stomach. 8th. Nervous or sympathetic dyspepsia. 9th. Fermentative dyspepsia. 10th. Duodenal dyspepsia.

He then refers to it as a symptom in various diseases of the stomach, as cancer, ulceration, etc. Especial reference is made to the nervous connections of the stomach with other organs, and the reflex phenomena presented when it or those organs are affected. These sympathetic disturbances are divided into:

1st. Disturbances in the cerebro-spinal system, causing (a) affections of the cerebrum, (b) of the special senses, (c) of the spinal system, and (d) of the cranial and spinal nerves.

2d. Disturbances of the circulatory and respiratory organs.

3d. Affections of the hepatic and of the renal systems.

4th. Disturbances of the genito-urinary organs, the union between the hypogastric plexus and semi-lunar ganglia being very close.

5th. Affections of the skin. "It is frequently observed in lichen and eczema that the gastric symptoms increase when the irritation of the surface is lessened."

In discussing the symptoms of disease of the stomach, he gives special prominence to pain and vomiting. His table of the causes of vomiting, though not so exhaustive as might be made, is full enough for all practical purposes.

Chapter VI is a review of the uses and abuses of the remedies for indigestion. It is a matter of regret, he says, that the stomach should be used as a sort of living fulcrum on which the physician exercises his power of staying and controlling disease of whatever nature; and gives an earnest plea for the more frequent use of the hypodermic or rectal administration of medicinal agents. The author speaks of the excessive use of alkalies, purgatives, mercurials, alcohol, and other agents as inducing disease of the mucous membrane of the stomach, interfering with the proper secretion of gastric juice, and temporarily or permanently impairing digestion. With reference to atonic dyspepsia, and the feeble digestive power of old persons, he says: "Although we cannot restore organs already degenerated, or revive the elasticity of youth, still much may be done to remedy this state, and there are three sources of alleviation available to us. (1) The administration of such diet as the enfeebled stomach can digest, and the judicious use of stimulants. (2) The regulation of the general habits and conditions of the patient, so that strength may be economized and unusual activity of the digestive organs guarded against. (3) The right use of medicines, as far as they are called for." But we cannot go on quoting from this valuable book. It is a work that every physician should have—thoroughly practical, full of facts and valuable suggestions, especially regarding diagnosis and treatment. The author is a good writer, and has performed his work with care. There is scarcely a superfluous word in the book.—Wm. G. E.

Dental Anatomy and Surgery. By HENRY SEWELL, M. D., D. D. S.

This book should be in the hands of every country practitioner who has, occasionally, to perform dental work. It is thoroughly plain and practical, and evidently written by a man who knows what he is writing of, and how to write it. He gives the anatomy, physiology and histology of the teeth in such a manner as any one can easily comprehend; shows how easily malformations and malpositions can be treated; treats of caries, diseases of the pulp, dental periostitis, and other diseases of the teeth and jaws, of the gums and oral mucous membrane in a manner suited rather to the medical than dental practitioner; and shows how teeth ought to be extracted, plugged and pivoted. We do not think that it is in the province of a physician to do dental work, where a dentist is easily accessible; but this little work teaches us that many aching hours and teeth may be saved by a little study. For these reasons we commend it most heartily to the country practitioner.—WM. G. E.

Clinical Hand-Book on the Diseases of Women. By W. SYMINGTON BROWN, M. D., Member Gynæcological Society of Boston, etc. New York. William Wood & Co. 1882. 8vo. Pp. 247. (For sale by Messrs West, Johnston & Co., Richmond.)

We have examined this book with something more than unusual care, and we regret to feel compelled to say that we find nothing of importance in it that is not better stated in the ordinary text-books. Unfortunately, we find several "clinical" errors of statement. For instance, in the description of the vagina, we find it stated that "in women who have borne children, [there is] a cavity near the upper part, the rest of the canal being in contact antero-posteriorly." While we would not deny the idea which our author wishes to convey by such a sentence, it is yet so inaccurate as to lead his reader, who does not know better, that the upper end of the vagina is a "*cavity*." We need not refer to other inaccuracies of language which would mislead the recent ex-graduates, and which would mislead many *young* doctors, in the ordinary sense of this term. We wish we could do more, but we cannot recommend the purchase of this book to any other class of doctors than to those who have sufficient pecuniary means to procure "a full library," or else for those who, as specialists, desire to receive, in book-form, the latest facts.

Illustrations of Dissections. By GEORGE VINER ELLIS, Professor of Anatomy in University College, London, and G. H. FORD, Esq. Vol. II. Second Edition. New York. Wm. Wood & Co. 1882. 8vo. Pp 226.

This book is the February issue of "Wood's Library of Standard Medical Authors." It consists of a series of original colored plates drawn from nature by Mr. Ford from dissections made by Prof. Ellis. This second volume describes the perineum, the abdominal parietes, the pelvis and the lower limb. The text descriptions of the plates, as well as the plates themselves, are excellent. The book is really a very deserving one, and we would recommend it to those who, already having Gray's or Wilson's Anatomy, is in need of a consultation book on the subject.

Annual Report of the Board of Health of the State of Louisiana for the Year 1881. 8vo.

This voluminous report, as valuable as it is voluminous, prepared by that indefatigable worker and scientist, Dr. Joseph Jones, of New Orleans, deserves a notice which our space will not permit. This exhaustive report possesses a value beyond that of such reports as are usually issued by Boards of Health, which merely give statistics. In this report of Dr. Jones, the statistical tables are not wanting; on the contrary, the most valuable statistics are presented to the student of Sanitary, Medical and Political Science; the announcement does not overstate the fact when it says of the report, that it contains "A Succint History of the Endemic Diseases of New Orleans during the past half century, and furnish to the Health Organizations of Foreign and Domestic States important data for the proper estimation of the vast amount of medical skill, labor and money expended by Louisiana in the treatment of the sick of all nations and States, and in her efforts to exclude foreign pestilence from the Mississippi Valley." The report contains many statistical tables, and covers in addition 427 pages.

Lectures on Diseases of Children. By Dr. EDWARD HENOCH, Director of the Clinic and Polyclinic for Diseases of Children in Royal Charité, and Professor in the University of Berlin, etc. New York. Wm. Wood & Co. 1882. 8vo. Pp. 357. (For sale by Messrs. West, Johnston & Co., Richmond.)

Although we might find some objection to the *too exact verbal* translation of this "hand-book for physicians and students," which sometimes necessitates the American reader

to re-read the same sentence two or three times to get the true meaning of the author, still the substance of the work is valuable to every practitioner. The work is founded almost entirely upon a personal experience of thirty seven years in active practice, as well as an almost uninterrupted dispensary service for a like period in the field of diseases of children. An excellence of the book consists in the brief record of illustrative cases—thus bringing out prominently the striking points of a case which facilitates diagnosis. This "Hand-book" cannot be called exactly a systematic work, nor does it seem intended exactly to supplant the more complete text-books on the subject; it is rather a consultation-book, in connection with text-books. Viewed from this standpoint, it is to be recommended highly.

Editorial.

The Title Page and Index of Volume VIII, ended with this March issue of the *Medical Monthly*, will be issued with the April number, 1882. We make this remark for the benefit of those who may wish to bind the volume.

The Profession and Politics.—As we understand from the *Maryland Medical Journal* (April), the profession insist upon the re-appointment of Dr. J. A. Steuart as Health Commissioner of Baltimore. The appointment rests with the Mayor of the city. It appears that the Mayor is slow to respond to the appeal of the six hundred physicians of his city. A charge of *such* a six hundred should carry a stronger citadel. The Journal significantly points out the strength of City Hall power, and strongly says: "There is only one way in which we can ever expect to obtain that recognition which is due to our intelligence and standing, and that is by being thoroughly united and harmonious. It cannot be supposed, for a moment, that six hundred citizens, forming the most highly cultivated and educated class in the community, should be altogether without a voice in the conduct of public affairs—except by their own neglect and indifference." Words wisely spoken!

Canadian Medical Colleges.—Referring to the examinations now in progress in the Medical Colleges of Canada, the

Canadian Journal (April) states: "The most important feature is the fact that they are every year becoming more practical, and therefore more useful. * * * We notice with pleasure that the students will be subjected to a thoroughly practical test in both primary and final subjects." We are pleased to note the fact that there is a general desire, on the part of the managers of the American Medical Colleges, to raise the standard of practical and theoretical education. But, with the multitude of colleges, and the unavoidable *bid* for trade, we fear that there will be difficulty in raising the standard of medical education all along the line.

The Medico-Legal Society of New York.—The work of this Society, which has been in existence for several years, says the *New York Medical Journal* (March), "has been mediocre, to put it mildly, and hence it has not hitherto attained to a very high place in the esteem of either of the two professions from which it draws its membership. There is reason to believe, however, that this state of things will speedily cease to be. Owing chiefly, as we understand, to the devotion of Mr. Clark Bell, who has recently become its President, the scope of its work is being enlarged in a number of directions, and under such favorable auspices that men of a high class, in each profession, are attached to it, and will doubtless aid materially in bringing it up to the status that such an organization ought to hold." The Society aims to secure such a classification of experts "in the various branches of medical science as will enable it to place at the disposal of the courts witnesses whose standing cannot be questioned," by the fact that they are not called by either party in the case, but by the court, to further justice.

Dr. Edward Warren.—The Khedive of Egypt has, says *The Parisian* (March 14), "created Dr. Warren Bey, the well-know American physician, of Paris, a Commander of the Order of Osmanié, as a further recognition of his brilliant professional career in Cairo and in Paris." We do not know how to estimate the value of such an honor, but we do know that Dr. Warren is worthy of the highest honors as a physician that can be conferred "by prince or potentate."

Commencements and Flowers.—A popular audience at a Medical College Commencement finds its chief delight in the floral manifestations of partial friends to their favorite graduates. The extent of these annual displays has become fear-

ful. We are glad to note that the *Medical Times* has entered a mild phillipic against the senseless exhibit. It says: "Apart from the obvious partiality shown in flowers and parcels delivered—the best student by no means receiving the greatest number of floral offerings—the whole thing is inconvenient, absurd and out of place; and what was at first a pleasant custom has now grown into an abuse. Considerations of this character led the graduated class at the last commencement of the University of Pennsylvania to discard entirely flowers and gifts, other than prizes." We may add that neither the profession nor the laity are misled by these obtrusive flowery ovations. In a small college the custom may, perhaps, with propriety, be continued; but flowers and gifts should not be the *thing* of a college commencement.

Baltimore College of Dental Surgery held its Forty-Second Annual Commencement March 9th. There were forty-seven graduates, representing fourteen States of the Union and two foreign countries. Prizes were awarded: First, to J. S. Bizzell, North Carolina; second and third, to J. J. Sanjurgo, Porto Rico, West Indies; fourth, to C. L. Alexander, North Carolina; fifth, to S. P. Sharp, Tennessee. Honorable mention was made of graduates from South Carolina, Pennsylvania, Illinois, Maryland and New York. At the *Alumni* meeting, following the public exercises, Dr. Charles Steel, of this city, was elected Corresponding Secretary.

Vanderbilt University, Department of Dentistry.—The Commencement exercises of this department were held in the chapel on February 24th. M. J. Lunquest, of Alabama, delivered the address for graduating class. There were fourteen graduates, representing six States. Among the matriculates, numbering thirty-three, was one lady. We gain these facts from the *American Journal Dental Science* (March).

University of Pennsylvania.—At the late Annual Commencement, the 116th, of this University, Dr. William Pepper—who contributes an article for this issue of the *Monthly*—as Provost of the Medical and Dental Departments, conferred the degree of Doctor of Medicine on 122 graduates and the degree of Doctor of Dental Surgery on forty-two members of the Dental Department. *The Medical Bulletin* (March) gives the list of the students to whom prizes were awarded.

Maternal Impressions —"A lady, during pregnancy, carried with her, says the *Dublin Medical Journal*, "a pocket edition of Moore's Poetical Works, which she read almost constantly. Her child, at three years of age, exhibited a most wonderful gift of putting sentences into rhyme." The *Brit. Medical Journal* says: "Blame not the bard—but a case like this shows how important is a well-assorted library to a gravid uterus," and the *St. Louis Medical Journal* (March) unfeelingly adds: "We hope that this item will be soon cremated." What pocket classic did Pope's mother carry during the gravid uterus period? Pope, too,

> "Lisped in numbers,
> For the numbers came."

This "maternal impression" business is becoming a serious matter.

Hygeia Hotel.—Dr. F. C. Shattuck, of Boston, contributes an interesting letter to the Boston *Medical and Surgical Journal* (April 6th) in regard to the famous Hygeia at Old Point Comfort. In the main he highly approves of the management of the hotel. Had he remained longer and become better acquainted with the Proprietor, he would have found ample reason for the highest praise of this resort as a winter sanitarium. Already it is found difficult to find accommodation in March and April, though there are rooms enough to meet the demands of over 1500 visitors.

An Opulent Doctor.—It is said that the late Dr. Pancoast left his family a round million—a right round sum for a doctor. There was not a more liberal hearted man or more generous practitioner than Dr. Pancoast.

Our Subscribers.—To the many new subscribers to the *Monthly* we must say, that heretofore, during eight years, we have been generally prompt in the issue of the *Monthly*, but for reasons set forth in the January number, containing the *Transactions* of the Virginia Medical Society, we were unavoidably set back.

The Family Physician.—We take it to be the duty of the family physician, not only to answer the calls of his patient, and then and there give his advice, but also to suggest to parents the manner of treatment and method for the conduct of their children. We would say to a young couple to em-

ploy an active, intelligent, well-read and practical physician. Be certain that he is a gentleman. Let the physician grow up with the family. Let the children look upon the physician as next to priest or pastor of the family. He should be consulted frequently, not only when disease forces, but when there is no indication of disease. In the matter of schooling, athletic exercises, amusements and *work* of the child let the physician be consulted. The parent does half his duty when he calls in a doctor to prescribe for diarrhœa and scarlet fever. Even if there is health or apparent health, the doctor should be called in and his advice followed.

Southern Medical College.—The Third Annual Commencement of this institution was held at Atlanta on March 1st. From the *Southern Medical Record* we learn that there were thirty-seven graduates, representing seven States. Rev. Dr. Battle delivered the diplomas and delivered the annual address. The class valedictory was delivered by Dr. J. H. Sims, of Georgia. Among other prizes to graduates, the "Faculty Prize" ($75) for highest proficiency, was awarded Dr. B. F. Bradbury, of Maine; the second prize was won by Dr. John H. Young, of Virginia. Dr. Young likewise received two other prizes.

Georgia Medical Association will meet in Annual Session at Atlanta on April 19.

Arkansas Medical Association.—The next Annual Session of this Society will be held in May, 1882, on the Wednesday preceding the meeting of the American Medical Association.

The Virginia Medical Monthly closes its eighth year with this issue. As heretofore stated, with the beginning of the *Ninth* annual volume (April No.) it is believed that the *Monthly* will enter upon a period of greater prosperity. The results of the past eight years have been satisfactory, but there is room for improvement, and we shall aim to occupy no mean place in American medical journalism.

Small-Pox.—The reports to the National Board of Health to March 25th, fully show that this epidemic is rapidly disappearing throughout the country.

The Southern Planter.—In a late issue we had occasion to commend *The Southern Planter* as an agricultural journal

of highest merit, especially to the farmers and planters of the Southern and Western States. Mr. T. W. Ormond, late of Tuscaloosa, Ala , has taken control of the *Planter*, and will issue it semi-monthly at the rate of $1.25 per annum. Mr. Ormond brings to the management ability and experience, and with the enterprise already displayed under the new management, we feel safe in saying that the *Planter* will enter upon a new era of prosperity. Col. Wm. C. Knight, Ex-pesident of the Agricultural Society of Virginia, and long known as an able writer, becomes editor.

Expert Fees in Courts of Justice.—The Supreme Court of Boston (*Boston Med. and Surg. Journal*, Dec. 22, 1881) ruled that a physician is not bound to give his professional opinion for nothing in court, any more than elsewhere, and that he may require to be paid for testifying as an expert.

Town and Gown.—A college student and a policeman seem to be, in many States and countries, natural enemies. A baton stirs up the bile of a gownman, and the cap of a gownman is the red flag to the bull-policeman. Happily this belief finds little support on either side in the Southern States. The *Canadian Journal* (Jan.) tells of a collision between the students of the Toronto School of Medicine and the police force, "while the former were walking home from their annual dinner." Now it generally happens that an "annual dinner" is a mirth provoking occasion, and experience shows that carousals sometimes follow. These student rows do colleges irreparable injury. We are glad to note that among the American Medical Colleges there have been of late years no occasion to remark upon the disorders of medical students The students of medicine are *men*, not the sophomores of Princeton.

Swallowing Small-Pox.—A Dr. S. Swan (says the *N. Y. Tribune*, April 8), is in charge of the "House of the Holy Family," a charitable institution for children, which at present contains 200 young girls between five and seventeen years of age. Dr. Swan did not vaccinate the girls either in their arms or in their legs. He administered "small white lozenges," which Dr. (?) Swan claimed possessed "a very high attenuation of the matter from a small-pox pustule." Now it happened that there was and had not been a case of small-pox in the hospital. The Health Department's Vaccination Corps of New York were not satisfied, and Dr. J. B.

Taylor, the chief of the vaccinating bureau, vaccinated twenty-five children; in every case the vaccination took, thus showing that these innocent girls would have been victims to small-pox had they been exposed. Yet Dr. (?) Swan stuck to his theory and his little "white lozenges!"

W. R. Warner & Co.—The thorough reliability of this house needs no commendation at our hands. Their carefulness in the manufacture of goods which bear their *imprimatur* is, now, a guaranty to the physician and druggist. While they have already won the highest success with their well-known preparations, still they manifest a progressive spirit, and are constantly making the discovery of new agents or of the preparation of old agents that meet the demands of the progress of the times. The advance in medical skill should be not faster than that of the scientific pharmaceutist.

The Texas State Medical Association will be held April 20th at Fort Worth. The *Texas Med. and Surg. Record* (April) is making an earnest effort to secure a large attendance of the reputable members of the profession. It says:

"If we wish to elevate the profession of medicine in Texas, from the very humble position which it occupies to-day, we must *all* work for that end. It is a public secret that, out of the three thousand physicians in Texas, not one-third is entitled to professional recognition out of their little, humble spheres. The majority are unknown; neither do they know the things they ought to know.

The only way to drive ignorance, quackery and fogyism out of Texas is to *organize* against it; and the very first step toward such organization is to ally with one of the highest and most responsible bodies of physicians in the State—the Texas State Medical Association."

The voice of the intelligent doctor should be gladly heard in every State.

In Belgium there is about one physician and one midwife to every thousand of the population. We are about to beat Belgium in the way of giving doctors to the people.

The Tri-State Medical Society, of Mississippi, Arkansas and Tennessee, will meet at Memphis April 11th. * * * It is expected that the proceedings will be of an unusually interesting and profitable character.—*Miss. Val. Med. Monthly* (March).

Mississippi State Medical Society.—This Society will meet at Oxford, Miss., on April 5th. We trust our friends in that State will supply us with reports of such proceedings as will prove of general interest to the profession.

The Medical College of Virginia.—The Senate bill before the Virginia Legislature which had been engrossed, looking to the vacating of offices of the present Board of Trustees and of the present Faculty on the first of May, and the appointment of a new Board of Trustees, whose duty would have been to reörganize the Faculty, did not come up on its passage, as the Legislature adjourned before this, as well as many other engrossed bills, were reached. Hence the College Faculty remains as it has been for the past year or two. If there has been any apparent occasion for any changes, it is to be hoped that hereafter everything will work smoothly, and that a greater success will fall to the lot of the College than has been attained during any year since the reörganization of the Faculty just after the war. Each of the gentlemen composing the present Faculty is a competent professor, and Richmond is a good centre for the building up of an excellent medical college—aided, as would be the case with the present College, by the large number of alumni, if more activity were exerted in extending its claims to the patronage of Southern students especially. Let every one now get actively to work to increase its sphere of usefulness.

The Commencement exercises of this Institution will be held during the latter part of April. We are gratified to learn that the class of the present session, as a whole, has been studious, and that the proportion of graduates of those who are applying for diplomas will be large.

Johns Hopkins University.—Dr. A. L. Carroll, of Staten Island, has been elected to a professorship in the Johns Hopkins University, Baltimore.

Resolutions Regarding New York Medical Code.—The following resolutions were adopted by the St. Louis Medical Society April 1st, 1882:

Resolved, That the St. Louis Medical Society, while it desires to accord the broadest freedom to medical investigation and recognizes fully the right of individuals to form and hold private opinions, hereby declares that it regards with disfavor any steps taken to lessen or obliterate the distinctions and safeguards between an honorable practice of medi-

cine founded upon science and that founded upon any of the current delusions and exclusive medical systems of the day.

Resolved, That a copy of this resolution be forwarded by the Corresponding Secretary to the New York State Medical Society, to the Permanent Secretary of the American Medical Association and to several specified Medical Journals.

Wm. Dickinson, M. D., *President.*

A. H. Ohmann-Dumesnil, M. D., *Recording Secretary.*

Dr. A. M. Fauntleroy, of Staunton, Va., has lately performed trephining upon a patient from Rockingham county, Va. From the brief statement of the case which we find in the *Valley Virginian*, we infer that there was a necessity for the operation, which has "proven entirely successful," as the patient's mind, which was much impaired, has been entirely restored."

We make this paragraph because of the fact that we believe, from recent advances, too little attention has been paid to the subject of trephining, or else there has been too much timidity on the part of the profession exhibited in performing this operation when demanded.

The New York Code.—"Fifty-two Doctors at Albany," says the *Ohio Medical Journal*, April, 1882, "reckless of honor but greedy for gold, undertook to sell out the regular profession; but only succeeded in selling themselves—and very cheap at that." There were many able physicians and upright men found among the "fifty-two."

Medical Graduates in 1882.—From best information at hand, we have reason to believe that *not less* than 6,000 physicians will be graduated from the several colleges of this country during the present season. They will come, as Dr. Billings lately said, "upon the whole, into very good company." There is always room for earnest workers, and in no other profession will zealous and able men more readily find preferment. But what is to become of the great mass of graduates who lay aside reading, study, and investigation so soon as they swing their signs on the outer walls, or stride their saddle bags or hang in imposing frame work their diplomas on office walls? It is full time for insisting upon the highest standard in our colleges, and the most thorough examinations of candidates for practice when they leave their colleges. The surplusage of non-practicing practitioners is growing to great dimensions in this country and in England. Of the students at the University of Edinburg (Scotland),

about one-half, viz., 1,638 are students of medicine! Is this wide world of ours not wide enough for some other employment than for that of medicine? Of making books and doctors there seems to be no end, but it is a matter of congratulation to know that books and doctors worth living, live.

Arrests for Advertising Nostrums.—The laws of Pennsylvania prohibit "advertising medicines, drugs, and nostrums for the cure of secret diseases" in the papers of that State. The *Medical News*, Feb. 4, 1882, notes the fact that several arrests and convictions of irregular practitioners and others for violation of this law have recently been made at Pittsburg through the energy of Drs. J. N. Dickson and W. R. Hamilton. The parties arrested plead guilty and were "let off" upon payment of costs, and promising to sin no more. The *Chicago Med. Rev.*, March 15, regrets that laws like that of Pennsylvania are not more general throughout the Union, and we ask why there should not be such a law?

Diphtheria and Scarlet Fever.—Dr. Fred. Horner writes (to the National Board of Health), under date of March 25, that diphtheria has prevailed as an epidemic in the Piedmont section of Virginia, adjacent to the Blue Ridge Mountains, for three years in succession, and in some instances had been very fatal. During the past month, malignant scarlet fever has prevailed among the pupils of the Winchester Academy.

University of Maryland.—The 75th Annual Commencement was held on March 1st. The degrees were conferred on 69 graduates. Prizes were awarded to distinguished graduates. —*Md. Med. Journal*, March.

College of Physicians and Surgeons.—The 10th Annual Commencement took place in Baltimore, Md., March 1st. The address was delivered by Hon. A. M. Keiley, of Richmond. Without the saying, we know that the address was excellent. There were 151 graduates.

Central Lunatic Asylum.—Dr. D. F. May, of Petersburg, has been elected to succeed the recently deceased Dr. Brooke as Superintendent of the Central Lunatic Asylum. Dr. May has been a member of the Legislature for more than one term, and so far as we know, this is his only qualification for the responsible office to which he has been appointed.

Physicians of the highest skill were candidates for the office, but their claims were as naught.

Is it Political.—Dr. Stephen Smith has been made Commissioner of Lunacy by Gov. Cornell, of New York, in the place of Prof. John Ordronaux. The removal of the latter and appointment of Dr. Smith are rather severely criticized on the ground that while Dr. Ordronaux has devoted his lifetime to the study of mental diseases, and is an alienist of admitted authority, Dr. Smith, so far as is known, has never paid any special attention to the subject.—*Boston Med. and Surg. Journal*, April 6th.

We would say that Dr. Smith is now or was recently a member of the New York State Board of Health, and enjoys a prominent position in the profession. Dr. Ordronaux is an alienist of world-wide reputation, and is an authority for the profession. Is this removal and this appointment made in the interest of "political expediency?"

Prof. Samuel D. Gross.—This distinguished surgeon and Nestor of the medical profession, has recently tendered his resignation as Professor of Surgery in the Jefferson Medical College, a position he has held for more than a quarter of a century. Few surgeons have so well established a reputation in this and other countries. We are happy to know (from *Medical News*, April 1st), that although in the seventy-seventh year of his age, he is still in the enjoyment of vigorous health, but recognizes the wisdom of lightening his labors with advancing years. Long may he live to advise the profession and to serve humanity.

Accidental Leeching.—Dr. W. G. Bulloch in a letter to Savannah (Ga.) *News*, relates an incident in which a gentleman, who was in the habit of dipping his face into a basin of hydrant water, while bathing suddenly felt drops of blood trickling from his nose, and after some trouble expelled a leech. The *Independent Practitioner* says, on the authority of Dr. Parkes, that the French army in Algiers have suffered much from the men swallowing minute leeches, which caused dangerous bleeding.

Boston Water.—The Boston *Journal of Chemistry* after giving a recent analysis of the water used in the Hub, thinks "that the water is open to somewhat serious objections on the score of healthfulness."

Indiana State Board of Health.—The Fort Wayne *Journal of the Medical Sciences* (April) predicts the failure of good results on account of the unreasonable requirements made of the medical profession by the State Board. The *Journal* intimates that *political* partiality in the selection of Secretaries, rather than professional skill, influences the State Board. Evidently the laws regulating *that* State Board of Health should be revised.

American Medical Association.—The next session of the Association will be held in St. Paul, Minn., commencing on June 6, 1882.

Needle and Thread Swallowed.—Dr. Roy, at a late meeting of the Atlanta Med. Soc. (*Atlanta Med. Register*, April) reports the case of a man who swallowed a needle and thread, who, "two years later, after a violent pain at stool," discharged the needle per anum. What became of the thread?

Society Rights.—The *Atlanta Medical Register* (May) referring to the fact that the Baltimore Medical and Surgical Society recently blackballed the application for membership of a colored man, who, it is said, is professionally qualified. Whilst fully acknowledging the right of the colored doctor to practice his profession, at the same time claims that "a medical society is largely a social organization. The Baltimore Medical Society has the same right to exercise its taste in the selection of its associates that the editor of the *Record* [*New York Med. Record*, which condemns the action of the Baltimore Society] has to exercise his taste in the selection of his own." In this opinion we fully agree.

Now it appears [*Phila. Med. Times*, April 22] that the applications of five ladies, whose professional standing was vouched for by the Board of Censors, were rejected by the Philadelphia County Medical Society. There is no question, perhaps, about the eligibility of duly qualified physicians to membership in duly accredited Medical Societies, but certain it is that each Society has the right to reject or approve any application that may be presented.

University of Louisiana—Medical Department.—The Annual Commencement exercises of this College were held in New Orleans on March 29th. The occasion was exceptionably brilliant. Prof. T. G. Richardson announced the graduates in Medicine (56) and in Pharmacy (8). Seven States and

Canada were represented in the graduating classes. Dr. Brice M. Hughes, of Tennessee, was the class valedictorian. The *N. O. Medical and Surgical Journal* states that his address received high commendation. Dr. S. E. Chaillé delivered the annual address—subject: "The importance of introducing the study of hygiene into the public and other schools."

Surgical Section, American Medical Association.—All parties who are preparing papers for this section should at once notify Dr. W. A. Byrd, 407 Jersey street, Quincy, Ill. The titles of the papers to be presented, with authors' names, should be sent to Dr. Byrd at least one month before the meeting of the Association. The Secretary of the Section very properly suggests that all physicians who propose to take a part in the debates should reduce their remarks to writing.

"Washington Malaria."—Dr. Samuel C. Busey contributes a most valuable article on the above named subject for the *Bulletin* of the National Board of Health, April 8th. The office of the National Board of Health is 1410 G street, northwest, Washington, D. C.

Louisiana State Medical Society.—On account of the great floods in the Mississippi Valley, the State Society of Louisiana did not hold its annual meeting on March 29. The *Medical and Surgical Journal* (April) says, "We think that the time of meeting has only been delayed for a short period, and that in the near future a meeting will be called which will be represented by every parish, and that its power as a State organization will be made known by the combined influence of the medical men throughout Louisiana." We have only this to add, that only through the *organized* efforts of the intelligent practitioners will the public be convinced of the importance of reforms in medical practice.

Hospital for Railroad Men.—Mr. Moses Taylor, of Boston, has set aside $270,000 for the establishment and endowment of a hospital at Scranton, Pennsylvania, for the disabled and sick employees of railroad and iron companies, with which he (Mr. Taylor) has been long connected. The *Boston Medical and Surgical Journal*, April 15, 1882, thinks that the hospital will also be opened to a larger constituency. It should be.

American Medical Association.—On account of ill health, President (Dr.) J. J. Woodward, U. S. A., has been compelled to visit Europe. Doubtless Vice-President (Dr.) P. O. Hooper of Little Rock, will preside at the next meeting of the Association, which will meet June 6th at St. Paul, Minnesota.

The Illinois State Medical Society will meet at Quincy, May 16. The *Peoria Medical Monthly* is earnest for a large attendance.

The Microscope, published bi-monthly, by Geo. P. Davis, Detroit, and conducted by Dr. C. H. Stowell and Dr. Louisa R. Stowell, of Ann Arbor, Michigan, is a journal that commends itself to the scientific microspotist. The *Microscope* should be consulted more frequently by physicians and druggists.

Proposed Pharmaceutical Association of Louisiana.—A convention of the druggists of Louisiana, to form a Pharmaceutical Society will take place at New Orleans, on Monday, April 24th, and all are cordially invited and earnestly requested to be present and participate in its organization; success in this movement depends greatly on the combined efforts of the many. We trust our Southern friends will find their new organization as productive of good results as have some of our nearer neighbors and as have the druggists of this State.—*Oil and Drug News*, April 18.

The College for Medical Practitioners, inaugurated at St. Louis (1882) has for its object: "To teach *medical practitioners*, by practical instruction, the special branches of medicine and surgery." Among other able physicians who will compose the faculty, we note the name of Dr. Thomas F. Rumbold, editor of the *St. Louis Med. and Sur. Journal.*

The New York Medical Code.—At the recent session of the Kentucky State Medical Society, resolutions were adopted disapproving of the action of the New York State Society in regard to consultations with irregulars. The *Atlanta Medical Register* (May) promptly records itself as in opposition to the new Code.

Garfield Memorial Hospital.—There is a bill before Congress to establish a Garfield Memorial Hospital at Washington.

Medical and Chirurgical Faculty of Medicine.—On April 13, Dr. A. M. Faantleroy, Ex-President of the Medical Society of Virginia, delivered a learned address before this Society; subject: "The reciprocal influence of morbid, physical and pyschical conditions of the nervous system."

Dr. Fauntleroy was, until recently, for many years the Superintendent of the Western Lunatic Asylum. His success before the Maryland Society was not exceptional.

Tapeworms in Excess.—Dr. Kiner reports (Soc. Médical des Hôpitaux of Paris) the case of a man who passed twenty-five perfect and complete tapeworms in succession.—*Louisville Medical News.*

The Virginia State Pharmaceutical Association will hold its first annual meeting in this city, commencing May 16. The conferences of intelligent pharmaceutists must prove of great value to those who prescribe, those who dispense, and more especially those who must submit to the practice of doctor and druggist. The following are the officers of the Association: T. Roberts Baker, Richmond, President; C. A. Santos, Norfolk, Vice-President; E R. Beckwith, Petersburg, Secretary.

PERSONAL.

Dr. J. Marion Sims.—The King of Spain has conferred the honor of the "Order of Charles the Third" upon this eminent American in recognition of his illustrious services as surgeon. Our great men are readily recognized as great men in every enlightened country. Dr. Sims has won from other Courts of Europe the badges of the most distinguished orders. Even our republican ideas do not permit us to do otherwise than appreciate the well-merited honors conferred by Kings, Emperors and Czars.

Dr. R. B. Stover.—In our last issue we should have stated that Dr. Stover had established his office at the corner of Grace and Seventh streets (*not Eighth*), opposite the Christian church.

Obituary Record.

Dr. E. B. Ward.—The following notice of the death of Dr. E. B. Ward was prepared by Dr. R. D. Hufford, of Chatham Hill, Smyth county, Va.:

Died, at Chatham Hill, Va., April 21st, 1881, of pneumonia, Dr. Erastus B. Ward, in the 57th year of his age.

The deceased was born in Tazewell county, Va., March 13th, 1825, of Alexander and Jane Ward. He received his primary education at Hiawassa College, Tennessee. In the year 1848 he commenced the study of Medicine in the office of Dr. William O. Floyd, of Wytheville, Va., where he remained until the fall of 1849, when he entered the medical department at the University of Virginia. In 1850–51 he attended lectures at the Jefferson Medical College, Philadelphia, where he graduated, and located at Liberty Hill, Tazewell county, Va., where he practised his profession successfully for eighteen years. In the spring of 1879 he moved near Marion, Smyth county, Va., where he remained a little over two years, and then located at Chatham Hill, where he continued the practice until the time of his death.

As a citizen and physician he is greatly missed, especially by the poor, who always found in him a valued friend. His kind words of cheer and comfort, as well as his skill as a physician, always made him a welcome visitor to the bedside of the suffering.

As a member of the church, his christian work was always exemplary, and his interest in its welfare lively. His piety was specially unobtrusive, yet manifest in every department of his life.

His last sickness he bore with christian fortitude and without a murmur—endeavoring to the last to cheer the grief-stricken ones about his bed-side—anticipating from the beginning the sad result. His death was calm and peaceful, his last words being: "I have not a shadow of a doubt or fear."

Thus has passed away from the toils of earth to an everlasting rest, as we believe, one who was the light and cheer and support of happy home, and respected, loved and honored by all who knew him.

Sir Robert Christison, well-known by his "*Treatise on Poisons*," and not less distinguished as a toxicologist, died January 27th at Edinburg, Scotland, at the age of eighty-five.

TRANSACTIONS

OF THE

TWELFTH ANNUAL SESSION

OF THE

Medical Society of Virginia,

HELD AT

OLD POINT COMFORT,

October 10th, 11th and 12th, 1881.

PART III—CONTINUING VOLUME III.

Resolved, That there shall be affixed to the title page of each edition of the Transactions a declaration that the Medical Society, in publishing papers, does not thereby endorse the views of authors; such endorsement shall only be by vote to be found in the Minutes of the session.—*Page* 15, *Transactions 4th Session.*

RICHMOND:
J. W. FERGUSSON & SON, PRINTERS.
1882.

NOTE BY THE RECORDING SECRETARY.

The present twelfth annual publication of *Transactions* constitutes Part III of Volume III. When a sufficient number of annual Parts will have been published to make a book of convenient size—say 600 or 700 pages—then these successive annual Parts will form Volume III, and will be properly indexed. The paging of these Parts of Volume III will be continuous throughout.

ANNUAL ADDRESS OF THE PRESIDENT,

DR. HUNTER McGUIRE, Richmond, Va.

CLINICAL REMARKS

ON

CANCER OF THE BREAST.

Gentlemen of the Medical Society of Virginia:

Medical education, the importance of sanitary science, the effect of incomplete and neglected State legislation, the relation of professional men to each other and to the public, and other kindred topics, have all been ably, and, some of them, exhaustively discussed on occasions like this by my very worthy predecessors. I trust I may, therefore, be pardoned for departing from this custom and asking you to consider with me to-day, some important and practical surgical subject.

Congratulating you that this Society has safely passed through its early struggles, that its organization is nearly complete, its membership and resources steadily increasing, and its influence for good growing with each year of its existence, and thanking you for the very kind greeting you have given me to-day, I ask your attention to a few—

Clinical Remarks on Cancer of the Breast.

The different classifications and the variety of names given by writers to tumors of the breast are well calculated to confuse the student or general practitioner, who, in making clinical examinations or diagnoses, and in determining the treatment of cases of this

character, seeks the aid of writers on this subject. For example, the "adenocele" of Burchette is synonymous with "chronic mammary tumor," of Sir Astley Cooper; "pancreatic sarcoma," of Abernethy; "tumeur adénoide," of Velpeau; "corps fibreux," of Cruveilhier; "hypertrophie partielle," of Lebert; "mammary glandular tumor," of Paget; "hydatid disease of the breast," of Sir Astley Cooper; "carcinoma hydatides," of Sir C. Bell; "sero-cystic sarcoma," of Sir Benjamin Brodie; "cysto-sarcoma," of Müller; "tuberous cystic tumor," of Cæsar Hawkins; "proliferous cyst," of Paget. (*Holmes' System of Surgery*, vol. IV, p. 677.)

Burchette (*Diseases of the Breast*) divides the whole subject of tumors of the mammary gland into: First, "New growths forming tissue, the elements of which, more or less, resemble those composing the gland." Under this head, he includes adenocele, fibrous and other tumors invested by their own capsule, cystic formations, duct-cysts, sero-cysts, lipoma, vascular, neuromatous, enchondromatous, and osteoid growths. The second division is, "New growths composed of elements foreign to the normal tissue of the body;" and under this head, he includes hydatid cysts, fibro-plastic growths, colloid and carcinoma.

Another recent writer (Gross on *Tumors of the Mammary Gland*) teaches that fibroma, lipoma and chondroma, which proceed from mature connective tissue, are perfectly benign growths; while myxoma, which represents the same perfected connective tissue, is semi-malignant, or, when removed, shows a great tendency to recur; that sarcoma, which comes from immature or unripe connective tissue, is very malignant in its character, more malignant than scirrhus, and only a little less so than medullary carcinoma. He also tells us that tumors composed of the elements of epithelium, are adenoma—a rare and semi-malignant tumor—and carcinoma, whose malignancy is so well understood. Two others, angioma (rare and usually associated with cancer—composed of blood-vessels,) and neuroma (composed of nerves), complete Dr. Gross's classification of solid tumors of the breast.

Until modern histologians settle among themselves upon some definite classification, writers and teachers of surgery will probably adhere to the old division of tumors of the breast into benign and malignant. As clinicians, this classification is sufficient, and although it is opposed to modern histological investigation and open

to some serious objection, I have concluded to adopt it to-day; and, with your permission, will occupy the brief time at my disposal in noting a few points in connection with this subject, based partly on my own clinical observation. The limits of this paper preclude me from doing more than touching on some points, and compel me to leave altogether unnoticed many matters of interest..

Some little tact and skill is often required to determine the existence of a tumor of the breast. If the woman is standing or sitting, with the breast confined partly by her dress, and imperfectly exposed, and the surgeon grasps the gland between his fingers and thumb, a sensation may be given of the presence of a tumor when none really exists. To make the examination complete, the patient should lie down, both breasts be exposed in their proper position, and the parts examined by pressing the organ with the palmar surface of the fingers against the chest. If a tumor is present it is thus readily detected, and its size, shape, consistency, exact position in relation to the gland, etc., may be carefully noticed. Frequently the growth can be seen as well as felt by this mode of examination.

The existence of the tumor having been determined, the next question is as to its character—is it an innocent or a malignant growth?

When it is circumscribed, well-defined, free and movable, or has attachments—if they exist—limited and uncertain, the patient young and healthy, without hereditary predisposition to cancer, the nipple not retracted, the skin and superficial veins natural, the lymphatic glands not enlarged, the neoplasm may be regarded with certainty to be simple and innocent. If the tumor appears after the age of forty years; is not circumscribed, with its edges lost in the surrounding tissues; not gliding under the fingers, but moving only with the gland itself; slowly and steadily growing; the nipple sunken; superficial veins enlarged; the skin dimpled, adherent, or discolored; axillary glands enlarged and duinrated; and if the individual has any hereditary predisposition to cancer, the neoplasm is almost certainly malignant.

There is a form of enlargement or growth of the mammary gland which should not be confounded with tumor—simple or malignant. A patient will come to us in great alarm sometimes, with enlargement of one of her breasts from inflammatory effusion. The action producing this growth is very chronic in character, causing no

change in the appearance of the skin, and the lump is usually discovered by accident. This kind of enlargement generally occurs in unmarried women from twenty-five to forty years of age, or in unfruitful married women who suffer with some functional disturbance of the generative organs. It may follow a mechanical injury, as for instance a contusion, or be the result of sympathy with ovarian excitement. Sometimes the infiltration involves one or more lobes of the gland, and the sensation on manipulation is that of a distinct, well-defined tumor. In other cases the whole gland is involved, and in grasping it a hard, disc-like tumor is felt, very heavy, circumscribed, loose, so that you can pass the points of your fingers under the mass when it is pulled away from the pectoral muscle. If examined while the woman is in the recumbent position, the mass is nothing like so large, hard or distinct. She will complain of great pain which runs from the breast to her shoulder, or around to her back, or over to the other breast; and this pain is always increased by the examination. Sometimes the parts are so tender that she will scarcely let them be touched.

It is sometimes difficult to distinguish this inflammatory change in the breast from the beginning of an infiltrating cancer; and if there is any doubt as to its character, it is well not to give a positive diagnosis for a few weeks, or until several examinations have been made. If the patient is young, has no other local signs of malignant disease, and the tumor has been in existence for several months, it can safely be asserted that it is not cancer; but if the patient is over forty, and there is lymphatic involvement, however slight, integumental change, or retracted nipple, although this last symptom is no positive sign of cancer, the diagnosis will not be so plain.

When it has been determined that the enlargement is due to inflammatory new formation, I have found the oleate of mercury applied to the gland, combined, if there is local pain or tenderness, with the oleate of morphia, to be of much value. If there is not too much tenderness, pressure, applied by adhesive strips, acts as a powerful absorbent; and if there is nothing to contra-indicate their use, the internal administration of iodide of potash, or very small doses of bi-chloride of mercury, will aid in dispelling the induration. Afterwards, tonics and attention to the general health may be needed. Cancerous infiltration would not be made to recede by any such measures, but would rather be aroused into greater activ-

ity by them; and the first positive evidence of diminution of the lump will confirm the diagnosis, and relieve both patient and surgeon of all anxiety as to the character of the enlargement. If the induration has begun to diminish, the remedies should be continued until every trace of the swelling has disappeared; for if a small nodule is left, it may, even after the lapse of years, become the nucleus of a new and malignant growth. It will be important in the treatment of such a case to distinguish between absorption of the peri-capsular fat, and diminution of the tumor itself. The woman may readily be deceived into the belief that the induration has lessened in size; and the unguarded attendant, also, may be misled by the simple decrease in the size of the breast from the disappearance of the adipose tissue which surrounds it.

Attempts at absorption in true mammary tumors have, in my hands, invariably failed. I have tried compression methodically applied with strips of adhesive plaster, compressed sponge or air-cushions, and with ointments and lotions of different kinds, and I am disposed to think that some of the reported cases of cures by these means have been, in truth, indurations from inflammatory infiltration, and not true mammary neoplasms. Nor are these remedies always safe; for if injudiciously applied or carried too far, they act as irritants and incite the tumor to increased activity and growth.

These tumors not being amenable to treatment by absorption, the proper plan is to remove them with the knife. No woman with a mammary tumor, however small, except perhaps a stationary fibroma, can consider herself safe as long as the tumor is permitted to remain. At any time in the various physiological changes which take place in this gland, the neoplasm may degenerate into a malignant growth. Sometimes it is true, as the breast, in which the tumor exists, passes during pregnancy, from the stage of inactivity through the various cell changes of "evolution," and at the cessation of lactation through another series of cell changes, the tumor disappears. I have seen this occur in several cases under my observation, but it is rare and exceptional.

Again, women are led to believe that a tumor, stationary or increasing slowly, will probably disappear after menstruation has ceased; when the truth is, at that time, when the secreting function of the breast has been abolished and its characteristic structure is gradually being effaced, the tumor is more apt to grow and be

come intractable. More than once in my life I have had reason to regret delay in removing a simple mammary tumor. I have seen a small adenocele stationary for years, round, smooth, hard, and movable, suddenly begin to grow, rapidly involve the skin and lymphatic glands, and end in ulceration and fungus hæmatodes. It is not safe to regard tumor of the breast as we do similar formations in many other localities. The physiological changes which take place in the breast gland during menstruation, pregnancy, and lactation; its wonderful sympathy with the generative organs; its frequent marked excitation; its rapid cellular waste material which cannot always be disposed of by neighboring lymphatic glands; its climacteric, functional and structural effacement—all render it liable to tumor formation, and these tumors to degenerative changes.

Sir James Paget has recently shown (*St. Bartholomew's Hospital Reports*) how many mammary tumors and indurations degenerate and become malignant. Adenoid growths, for years stationary or of very slow growth, suddenly pass into carcinoma. Some writers believe that a sarcoma may remain stationary for years and then suddenly develop its malignancy; and others, that a simple fibroma may, after many years of harmless residence in the breast, by increased vascularity and multiplication of cells, become converted into a sarcoma.

The question whether a blood extravasation, following a blow or simple contusion of the breast, may become the nidus of a new growth, is an important and interesting one. Every woman dreads a blow on, or a bruise of the breast, because of the popular impression that cancer may follow such injuries, and in many instances the cancer is distinctly traced by the sufferer to some blow, accidental or otherwise, which has been inflicted on the breast. I have no doubt, myself, of the truth of this general belief, and whatever the process by which it is effected, and it is a doubtful one, the fact that tumors, malignant and benignant, follow severe contusions, is in accordance with the experience of many observant practitioners of surgery.

Another question of interest and importance, and one about which writers on this subject are not agreed, is in regard to the hereditary transmission of cancer. While I do not believe that a cancerous growth is an expression of constitutional vice, but that cancer is originally a local disease, which, if permitted to run its course, eventually contaminates the whole system, still there are too

many evidences of a transmitted tendency to cancer for us to disbelieve altogether in it. It is, however, I think a transmitted tendency to a local disease, as we see in other affections purely local in character, as hæmorrhoids, in-growing toe-nails, club-foot, sebaceous cysts, and simple tumors. One of the most striking instances of hereditary transmission that I have ever heard of, will be found in the following brief history:

A prominent gentleman from Virginia applied to me a year ago and made the following statement, the truth of which is unquestionable. "My great grandfather died from cancer; my grandfather had cancer, but died from some intercurrent disease, my father died from cancer; my uncle (my father's brother) died from cancer. I lost my brother a year ago from the same cause. You operated on my sister nine years ago for cancer of the breast, and now I have a tumor in my right breast, and have come to ask you what it is." I found a tumor, as he said, in the breast, with all the symptoms of cancer; and this diagnosis was confirmed by microscopic examination after its removal.

Mr. Paget (*St. Bartholomew's Reports*, 1874) has called attention to the fact, confirmed by many other observers, that eczema or psoriasis of the nipple and the areola around, sometimes precedes the development of cancer of the breast. The eruption he describes as very intractable, resisting local and general treatment. The cancer "is beneath or not very far from the diseased skin, and always with an interval of apparently healthy tissue." It is believed that the disease extends from the skin to the small ducts and acini, and escapes from them into the surrounding tissues.

Another predisposing cause for cancer, and in my opinion quite a common one, is the indurations frequently left after an attack of acute inflammation of the breast, occurring during lactation. The hard and generally circumscribed lump left after such an attack should, if possible, be made to disappear before the case passes from under the observation of the attendant, or, after the lapse of many years, it may become the seat of cancer. Gross (*op. cit.*) records one case where cancer occurred 26 years after an attack of suppurative mastitis, and Winiwarter another case after an interval of 28 years.

A great deal of stress is laid upon retraction of the nipple as a sign of carcinoma of the breast. The value of this symptom has, I think, been over-estimated, and it is only of importance when as-

sociated with other symptoms. I have seen the nipple sunken and displaced in chronic mammary abscess, and occasionally in simple non-carcinomatous growths. A sunken nipple is also not infrequently a natural condition. When the physiological development of the breast takes place at puberty, the milk ducts may be too short, and the nipples kept sunken and displaced. When it follows the formation of some tumor or abscess lodged in the centre of the breast, it is the result of pressure on the gland-ducts which terminate in the nipple. These ducts are shortened, and thus retract the nipple. The cause is a mechanical one, and is not due to the character of the growth. If the neoplasm is carcinomatous, and not situated in the centre of the mammary gland, the nipple is not retracted.

Another symptom by which we may possibly be misled is in the pain attending the growth. In the latter stages, when the skin and lymphatic glands have been invaded, the suffering is simply horrible and unmistakable; but in the early stages, when the diagnosis is so important, and radical treatment, if ever practised, so urgently demanded, the character of the pain is not always so decided. Sometimes pain is absent altogether. In one of my cases, when the disease was of twelve months' standing, there was absolutely no pain at all, and very often in stages earlier than this, patients have been inclined to doubt the diagnosis because they suffered no pain. Cancer without pain was something inexplicable to them. We often see the same thing in cancer of the uterus, the disease making fearful progress and suffering absolutely absent. Again, in making a diagnosis it should be remembered that other neoplasms of the mammary gland are attended with pain. Not unfrequently a woman with a simple fibrous tumor will tell you that she has sharp, darting, lancinating pain, intermittent and neuralgic in character, which is regarded as characteristic of the pains of cancer. I have seen unmistakable carcinoma attended by dull, heavy, aching pain, and not the pain peculiar to cancer. Retraction of the nipple and pain must be combined with other symptoms in the early stages to be of value in determining the character of a mammary neoplasm.

There is still another symptom to which much importance has been attached by the older writers, that is, cancerous cachexia. In the early stages, when the growth is local, there is no such thing as cancerous cachexia present; and even in the later stages, some

writers doubt whether there is any further cachexia than would naturally follow any exhausting disease. They believe that any malady attended by pain, discharge, hæmorrhage, loss of appetite and sleep, and mental anxiety, will produce the same pale, sallow, waxy, anxious and suffering face and wasted body that cancer does. I think, however, when the disease has been disseminated throughout the system; has been transplanted by lymphatics and blood-vessels to different parts of the body, making new deposits which become foci for general infection, poisoning the whole body and killing by interfering with nutrition, and this, too, in one-half of the cases, without involving any of the viscera, that it should be considered as a specific cachexia, and that at this period of the malady there is as plainly a cachexia as there is in syphilis, gout or scrofula.

One of the most positive signs of cancer will be seen in the change which takes place in the integument near the neoplasm. If very carefully looked for, it will frequently be found even in the early stages of the disease. Sometimes it amounts only to a slight dimpling, as if the cancer had caught and slightly pulled the integument down towards it. Or where the skin in its proper position looks perfectly smooth and natural, if a pinch of it is caught up between the finger and thumb, and pulled slightly away from the tumor below, some slight attachment will be found at one or more points, as if one or more cord-like bodies fastened the under surface of the integument to the growth below. Pinching up a fold of skin over the central or more prominent part of the tumor, and comparing the sensation communicated to the finger there with that experienced by pinching up a fold of skin on the opposite and sound breast, will enable the surgeon to avoid any mistake in regard to this symptom.

Occasionally, by advancing cell-infiltration, the skin becomes brawn-like and hard; or small bodies like shot are scattered here and there in the integument; or the capillaries becoming enlarged discoloration follows. These conditions of the integument may be considered characteristic of cancer.

Another symptom of value is the immobility of the tumor in the breast, and a little later its adhesion to the walls of the chest. At the time this takes place lymphatic involvement can usually also be discovered, the glands involved being those which have an anatomical connection with the mammary gland.

When a patient, forty years of age, or more, comes to us, who has a small, uneven, densely hard, solitary, painless tumor of the breast, with the integument pitted or dimpled, adherent or discolored, the tumor tightly fixed to the glands, so that it cannot be moved without moving the structure of the breast with it, growing very slowly, retracting the nipple, if situated in the centre of the breast, we may feel certain that we have to deal with carcinoma. Besides these symptoms there may also exist a hereditary predisposition to cancer, previous eczema of the nipple, or, perhaps, discharge of blood and serum from that body; and later on in the progress of the case, we may expect lymphatic involvement, ulceration, atrocious pain, loss of appetite and sleep, wasting of the body, and impairment of the general health.

Having determined that the case is one of carcinoma, the question arises what shall be done with it? All constitutional remedies for its relief have so far been found absolutely useless; and the surgeon is not justified, in the present state of our knowledge, in depending upon any such remedies. If the disease is permitted to run its natural course, it is inevitably fatal, the average duration of life being about two years. Dr. Gross, in his very valuable work on *Tumors of the Breast*, has collected the records of 616 cases of carcinoma of the breast. In 97 the disease was permitted to pursue its natural course: "Of the 97, 70 were dead, 13 were still alive in bad condition, and in 14 the fate was unknown." The average duration of life in unoperated cases, according to Gross, was 27.1 months. Oldekop makes it 22.6 months; Henry, 26 months; months; and Sibley, 32 months. Five hundred and nineteen of the 616 cases (Gross's record) were operated on by the knife; 224 of these patients died with recurrence of the disease. In these cases the average duration of life was 39 months, showing that the average prolongation of life by operating was about one year. Oldekop makes the average duration of life after operating 38.1 months; Henry, 39.3 months; Winiwarter, 39.6 months; and Sibley, 54 months. Forty-three of the 519 cases reported by Gross which underwent operation were still living, having remained free from recurrence from 3 to 15 years after the resort to the knife, and four other cases had died after three years had passed, without return of cancer. Dr. Gross shows that local recurrence of cancer occurs in only one-half of one per cent. of all cases after three years have passed since the last operation; and that the cure may be assumed to be a radical one, if three

years after the last operation no local or general return of the disease takes place.

From the foregoing statistics, which have been carefully collected, it will be seen that the average life of a patient laboring under carcinoma of the breast is about two years; that removal of the breast, with all the infected parts, independent of the chance for a radical cure, gives an average gain, according to the statistics of Gross, Henry, Oldekop and Winiwarter, of about one year, and according to Sibley, of nearly two years of life; and that in 9.05 per cent. of all cases where the operation is complete, permanent cures of the disease are effected.

The cases from which the above record was made, were not selected instances of the disease, but are what may be called the average of cases of cancer of the breast. Indeed, in some of the patients, the operation was evidently incomplete, enlarged glands in the axilla being left intact.

The arguments in favor of cancer being originally a local disease, and that the constitution is affected secondarily by dissemination of the poison and its absorption into the system, appear to me to be as conclusive as it is possible for such evidence to be, and I think it is safe to affirm that when we are able to diagnose the disease in its early stages, before constitutional contamination takes place, and when surgeons realize the importance of complete extirpation of all the diseased parts, that the average prolongation of life will be increased and the proportion of radical cures augmented by surgical interference. It is of paramount importance to make the diagnosis early, before epithelial cells from the malignant growth have found their way into the neighboring tissues, or, by means of the blood-vessels and lymphatics, have been carried to remote viscera or tissues of the body, where, by proliferation of cells, they generate new growths of cancer. When cancer is disseminated, lymphatic glands having anatomical connection with the breast are usually involved, but they are not necessarily so; for as the poison of syphilis may be carried to different regions of the body without the intervention of bubo, so carcinoma may be disseminated throughout the system, involving viscera, bones, and other tissues, and the lymphatic glands near the breast entirely escape contamination.

The earlier, then, the complete removal of the diseased part, the better the chance for cure and prolongation of life. An early operation is of such importance that I would urge, when the character

of the tumor is suspicious, that the patient should have the benefit of the doubt, and the growth removed. If, upon examination after removal, it should turn out not to be carcinoma, we will not only have relieved our patient of great mental anxiety, but we will have taken away a growth which, in time, might have become malignant.

In performing the operation for cancer of the breast, the surgeon should bear in mind the fact that the disease has no capsule, as many other mammary tumors have; but there is around the morbid growth what Mr. Erichsen calls a "halo of cancer-deposit," which must also be removed, or the operation will be worse than useless. If small pieces of the cancer are left, or diseased lymphatic glands, or any portion of the mammary gland, even if apparently healthy, or cellulo-adipose tissue in which cancer cells have been infiltrated, the disease is certain to come back quickly. Everything which has a suspicion of cancer-deposit must be thoroughly eradicated. Skin, fat, muscles, and fascia should all be sacrificed if necessary, for the complete eradication of the disease; and if lymphatic glands in the axilla are enlarged or indurated, the incision should be carried up into the axilla and the diseased glands completely removed, The old-fashioned elliptical incisions around the nipple are generally insufficient for the entire removal of the diseased parts. Bringing the lips of the wound nicely together is of secondary importance, and it is much better to trust to a cure by granulation and an open wound, than to run the risk of leaving any infected portion. Adipose tissue near the tumor especially should be gotten rid of, as it is a favorite seat of cancer-deposit, and the fascia covering the pectoral muscles directly under the gland should be cleanly dissected off before the operation is finished. No surgeon should attempt the operation unless he is willing to make it thorough, and he should have in view the fact that he is removing a local disease, before distant tissues and the system generally have been contaminated.

If evidence of systemic infection exists, or tissues beyond the reach of the knife have become contaminated, it will be better not to operate at all, but be content to palliate the trouble by relieving pain, correcting fœtor, and making the life of the sufferer as endurable as possible.

After the operation is over and the parts have healed, the patient should be instructed to see the surgeon every three or four months, and the cicatrix and the parts around it be carefully examined; and

if a new growth or recurrence of the old growth be found at any time about the cicatrix, in the pectoral muscles, or in the lymphatic glands, it should be removed. I have operated eight times upon the same individual for recurrent sarcoma before the reproduction ceased to form; and the patient is now—seven years after the last operation—entirely well. And I have operated three times for carcinoma of the breast, the last operation consisting of removing diseased axillary glands and a portion of the pectoral and intercostal muscles, with all of the tissues at that point between the third and fourth ribs down to the costal pleura; and the lady is now, 9 years after the last operation, well. This lady is one of the family whose history I have given, in which the hereditary predisposition to cancer was so strong.

About ten years ago, I began to give my patients, after operating for carcinoma of the breast, hypophosphites of lime and soda, more with a view to its general tonic effects than with any idea of its acting as a special alterative in cases of this malady. I had, at one time, in hospital and in private practice, four cases convalescing from the operation of excision of the breast for cancer. They were suffering from the exhaustion consequent upon the operation and confinement, and all of them needed tonics. For some reason, which I do not now remember, I gave two of them iron and quinine, and the other two, hypophosphites of lime and soda.* The latter improved so much more rapidly than the former, that I could not help being impressed by it. The difference in the convalescence, in favor of the two who took the hypophosphites, could not be ascribed to difference in their ages, general health, or surroundings, but appeared to me to be due to the powerful alterative and tonic effects of the hypophosphites of lime and soda. Before discharging these patients, I asked each one of them to take the medicine for six months (one teaspoonful three times a day), and at the end of six months, to take it three weeks in every month for six months longer. In one of these cases the disease had been in existence for sixteen months, and along with the entire breast I removed several axillary glands. The cancer returned in this case in two years, and proved fatal. In the second case (patient æt. 60

*℞ Hypophosphites of lime and soda ..... ℥ss
Dilute phosphoric acid ..... ℥ss
Distilled water ..... ℥viij
M. S.—Teaspoonful in water three times a day.

years), the disease reappeared in the cicatrix at the end of seven years, and proved fatal. In the third case, there was no evidence of return of the disease after the expiration of six years, when I last saw her. In this instance, the disease had existed more than a year: the tumor occupied the greater part of the gland, but there was no lymphatic enlargement.† In the fourth case the patient (æt. about 50 years), was strikingly sallow, pale, and thin; the tumor was first observed sixteen months before the operation. The whole breast, with three enlarged axillary glands, were removed. The extent of skin involved was so great that it was impossible after the operation to bring the lips of the wound together. The repair was chiefly by granulation, and the cure was tedious and prolonged. This lady is now alive, and has had no recurrence after ten years.

Since I first observed the good effect of hypophosphite of lime and soda, I have given it to every patient upon whom I have operated for carcinoma of the breast; and while I have had, of course, many cases of recurrence of the disease, I am satisfied that the return of cancer has, in some cases, been delayed, and in others altogether prevented by the use of this remedy. I do not think the delay or prevention of recurrence of carcinoma, which has made my operations for this disease in the last ten years more satisfactory than they formerly were, can altogether be ascribed to the greater care I have taken to remove the whole of the diseased structures with the knife, although this is of absolute importance, and without it there can be no hope of a cure; I cannot help believing that, in some measure, it is to be attributed to the use of the hypophosphites. I make this statement in the full consciousness of the criticism to which it subjects me, but with the hope that others will give it a trial. It may lead to the discovery of a better remedy or combination of remedies; and if of no value, it will soon be discarded. In medullary cancer and in sarcoma I have found this agent of no value. In one case of scirrhus in a feeble lady, æt. fifty-three, whose breast I removed in 1875, the lady continued to take the hypophosphites, not by my direction, but of her own accord, for six years, leaving it off occasionally for one or two months. This patient has grown stouter and stronger, and in all

† Since the above was written, I have learned that this patient is still living, and has had no return of the disease.

respects her general health has improved under the use of this agent, and I mention her case only to show that the prolonged use of the remedy is not hurtful. There has been no recurrence of cancer in this case.

I sometimes combine with the solution of hypophosphites, iron or arsenic, or both, if their use is indicated, adding to eight ounces of the solution half an ounce of the muriated tincture of iron and half a drachm of liquor chlorin. arsenici.

I have under observation at this time three patients upon whom I have operated for carcinoma of the breast, whose cases are of interest in this connection. One of them is a lady upon whom I operated in 1874, for scirrhus of the right breast. In 1880 she came to Richmond to nurse her sister, in whom cancer of the breast had also made its appearance, and while waiting on this sister, she called my attention to a small, densely hard, round, smooth growth about the size of a garden pea, which had lately formed in the cicatrix. The little lump had been observed only two or three months before, was painful and growing slowly. I directed her to take the hypophosphites of lime and soda again, and a few days ago her physician wrote to me that "the tubercle had almost entirely disappeared, gave her no annoyance, and she had ceased to feel any uneasiness about it."

The second case is that of a single lady, æt. 38, whose cancerous breast I removed in 1879. She took irregularly the hypophosphites for one or two months after getting home, and after that time stopped it altogether, because it produced some irritation of the bowels, and diarrhœa, as unfortunately it will sometimes do. In June, 1881, she came back to see me, and I found growing in the cicatrix a hard, dense, uneven, and very painful tumor about the size of a hickory nut. The tumor was tightly fixed to the walls of the chest, and to the skin. Two or three distinct nodules could also be seen and felt in the skin about the cicatrix. The weather was intensely hot at the time, and I asked her to go back to her country home, and return as soon as the weather was cooler, and in the mean time, to take the hypophosphites, combined with as much morphia as she found necessary to keep the bowels quiet. She wrote to me from time to time, saying the disease had not increased, and she would wait until the fall. She came back in September, and I found that in the three months the disease had not

increased at all, but remained very much as it was when I saw her in June.

The third case is one of a married, unfruitful lady, 48 years of age, whose breast I removed for carcinoma in February, 1878. She took the hypophosphites until June, 1879 In March, 1881, she called my attention to a hard and painful deposit under the great pectoral muscle near the axilla. It had all the appearance of recurrence of carcinoma. She ascribed this swelling to some strain of the muscles, received while nursing her husband who had been ill and died a month or six weeks before. I gave her the hypophosphites again, asking her to take two teaspoonfuls at a dose, instead of one; and in September, when I last saw this lady, the deposit had disappeared.

REPORT

ON

ADVANCES IN ANATOMY.

By CHRISTOPHER TOMPKINS, Richmond, Va.

Stimulated by a desire to do something for the Society, I wrote to Dr. W. C. Dabney, of Charlottesville, Va., one of its Fellows, requesting him to make a report on Physiology. He kindly assented, and assured me he would at least present something on that subject. Unavoidable circumstances have, however, prevented him from preparing a report.

During the year I have devoted what time I could to anatomy, and imperfect as it is, I shall submit the result of these studies, asking that their desultory and incomplete nature will be excused, inasmuch as they were gleaned (as it were), only in the odd intervals of a busy life, and chiefly during the protracted and almost unexampled heat of the past summer. I shall at least cemfort myself with the reflection, that since the existence of the Society no report has, I understand, been made on this subject; and should some of the matter brought to your attention prove not to have been discovered strictly within the past year, I judge it will be a matter of small importance, provided it is information comparatively recent. I have not hesitated to use freely the sentiments of the various authors referred to, or incorporate their very words in this report where it suited me to do so.

Improved Instruments.*—It will be admitted by all who are accustomed to dissecting, that we are largely indebted to the excellent instruments we now use for our knowledge of anatomy. No nice or minute dissection can be made without the aid of the *dissecting forceps*, and yet they are not two centuries old; indeed, in olden times we are told flint instruments were used by the Egyptians even in their process of embalming. The joy with which anatomists welcomed iron and steel instruments, and the radical

*I am greatly indebted to Messrs. Tiemann & Co., of New York, for much of the information here given as to insiruments.

change wrought thereby in their operations, could scarcely be equalled. The introduction of the dissecting forceps, now developed I may say into perfection, the nicely fitting of the blades, and their perfect adaptation on pressure (without bulging at the points), has been attained only quite recently.

The difficulty of opening the chest, leaving the organs *in situ*, and without mutilation, has in these modern times been overcome by the introduction of the *costotome*, an instrument that severs the bony rib with the ease and nicety with which formerly the knife passed through the cartilages; its ponderous blades moving with the precision and readiness of the scalpel. The intestinal canal that used, after the old method in opening with the scissors, make many a virtuous student temporarily forget his morals, can now be easily explored by the *enterotome*, which passes as uninterruptedly through the gut as does the scissors along a surgeon's bandage; its curiously shaped beak evading with a freedom almost akin to instinct the various convoluted folds of their interior. Even the tedious and unsightly operation of opening the skull, is no longer dreaded, inasmuch as we now know that the small *saw* with the stiff but removable back, will always tell you when you have passed the bone before injuring the membranes, and will, while yielding sufficient force to enter quickly the hardest and thickest cranium, at the same time adapt itself to all the sinuosities of an irregular cut. The loud and annoying click of the operator's *mallet* as he strikes the chisel in finally loosening the spicula of the skull that have not been reached by the saw, is no longer heard, offending the sensitive and doing violence to the feelings of those who love the subject, because the striking part of our hammer is now filled with lead, and while making equally as effective, if not a better stroke, the thud is scarcely perceptible. In place of the old *syringe* used for injecting subjects, we have now a new *embalming pump*, which not being directly in contact with the subject and not having to be removed, avoids the risk and danger of tearing the vessels into which it pours its fluids, and does away with any likelihood of cooling during the operation. The old *blow-pipe* is now laid aside, and one is used invented by Dr. Weisse, that can be operated without inflation by the lungs, thus avoiding dangerous inhalations of gases so productive of harm after the old method. A new *post mortem needle*, invented by Dr. Jarrett, with a head to it, prevents the wounding of the fingers in sewing, an accident exceedingly common with ordinary needles, and one that causes often the greatest uneasiness to the operator. The difficulty in removing the calvarium, even with well-made *blunt hooks*, is obviated by an invention of Dr. Satterwhite's. Attached to its handle are three claws, steel pointed, and so arranged as to grasp the entire head and hold it firmly. The single *rachitome* is now no longer used in opening the spine, a double instru-

ment saving about half the time formerly consumed in this operation. *Scissors with one blade, long and probe-pointed,* are now used for opening small cavities, such as small arteries, bronchial tubes, etc., making an examination of them that before was very difficult, by this means comparatively easy. The old-fashioned *chained saw* has a rival in an instrument invented by Mr. J. A. Stopeman, entirely free from any tendency to bind, kink, or break, which characterized the former instrument. It is composed of two handles connected by a wire of cast steel, on which are strung a mass of steel beads with sharp cutting edges. No needle is needed to carry it through or around a bone, and its beads can be readily strung on a new wire in case of a break. Another advantage is derived from the fact that the beads, by their free rotation, present fresh cutting edges. Its action on bone is said to resemble very nearly that of a very nicely made file. The rolling of the head on the dissecting table, so annoying, can now be avoided by the use of Tiemann's tripod or *head rest,* which, at the same time, elevates it. The pointed, narrow *brain knife* has entirely disappeared, except in old *post mortem* cases, and in its place we have a long, thin, flat and square blade, affording support to the brain substance as it is removed, instead of falling to pieces as was likely to happen before.

Inasmuch as the less defaced and injured the appearance of our subjects (after we are through with them), the more likely are we to get autopsies, it becomes important that the *post mortem stitch,* in sewing up, is well understood. If the needle is made to enter always on the lower surface of the flap, the raw edge of the cut will all be concealed, and nothing but a closely sewn seam will be observed; otherwise the cut surface will invariably show (it matters not what pains are taken to prevent it by the surgeon), and the dead body, instead of presenting an appearance little different from others, is made revolting.

It will, also, I trust, not be inappropriate to mention here in this armamentarium of the anatomist *a disinfectant* that has been used by me with so much success that I desire to make it known to others, who, like myself, from the nature of the work we have to perform, need something that will make a clean and innocuous hand. After handling a dead body, a vigorous and abundant application of soap and water is made with the nail brush; I then soak my hands carefully in "Blair's chloral thymol prophylactic and disinfectant," and let the fluid dry on them. It, in my opinion, not only purifies, but also effectually kills the odor that would otherwise remain.

Chorda Tympanic Nerve—Its Origin.—So much for the anatomist's preparation for his work. To come to some of the literature of the subject. In a recent article in the *New York Medical Record,* Dr. E. C. Spitzka writes, "That he is able to add an important confirmatory observation to those of Dr. Horatio Bigelow, favoring the view that the chorda tympanic

nerve is, after all, not a branch of the facial proper, but the continuation of the *nervus intermedius* of Wrisburg."

Fissures of the Sternum.—In addition to the foramen or foramina occasionally seen in the lower part of the sternum, fissures have been found to be comparatively common, and indeed the whole length of the bone has been known to be divided. This was notably so in the celebrated case of Dr. F. A. Groux. It has heretofore been believed that these malformations of the sternum were due to failure of the primitive cartilage in uniting in the fœtus, but it is obviously not explained by failure in ossification, as stated by Gray and others. The true explanation is probably that given by Dr. Charles Jewett, which is, that "the osseous sternum is preceded by a continuous or non-segmented piece of cartilage; and as the portion of the body in which this is developed is formed by the union in the middle line of the second ventral laminæ of the embryo, traces of this median division are generally seen in very young sterna, and one often persistent through life in the form of fissures or fistulæ at the middle line of the sternum." The closure of the thoracic cavity progresses from above downwards.

Corpus Striatum.—That important part of the brain, the corpus striatum, is now described (Dr. J. C. Dalton) as divided into two parts: one of them, the *intra ventricular* portion, visible from the lateral ventricle, the part seen in ordinary horizontal sections of the brain at this level. It has a bulging anterior extremity or head, and a slender posterior continuation like a tail. From this circumstance it is called the caudate nucleus of the corpus striatum. The other part is the *extra ventricular* portion. It is not visible from the lateral ventricle, but is imbedded in the substance of the brain. In some planes of section it shows a tolerably lens-like figure, and is therefore called the "lenticular nucleus." According to this nomenclature, the optic thalamus is a separate and complete ganglion by itself, while the corpus striatum consists of two portions, namely, an intra-ventricular portion, or the caudate nucleus, and an extra-ventricular portion, or the lenticular nucleus. But of late it has become customary to confine the name corpus striatum to the intra-ventricular, or caudate portion, while the other part is known simply as the *lenticular nucleus*. Consequently, the corpus striatum and the lenticular nucleus, for the greater part of their extent, are two separate masses. But there is one place where they are united, namely, their anterior or lower portion. At that point the gray matter is continuous, and the union of the two bodies can be seen perfectly well in sections made at the proper level. Everywhere else the corpus striatum and the lenticular nucleus are separated from each other by the fan-shaped mass of white substance ascending from the crus cerebri. This portion of the white substance running upwards and outwards between the corpus striatum and lenticular nucleus, is known as the "internal capsule."

Dextral Preference.—In the matter of dextral preference, some interesting facts are brought out by Dr. John A. Wyeth, well worthy of notice. He states that the usual arrangement of the body in most individuals is such that the blood supply to the right arm is greater than the left, while the supply to the left half of the encephalon is greater than the right. The cause of this almost constant, and hence normal arrangement, is the left obliquity of the heart. Which again is caused by the development of the liver on the right side, which pushes the apex of the heart to the left and from its original position in the median line. Dr. Byrd writes: "It is a singular fact, confirmed by the examination of nearly 200 cases at St. Marylebone, in which the hemispheres were weighed separately, that almost invariably the weight of the left half exceeded that of the right by at least the one-eighth of an ounce." It is believed that this increased weight is due to a greater supply of blood to this side. In two *post mortems* made by Dr. W., one where the left internal carotid was wanting, and no carotid canal on the left side of the base of the skull, but various anastamoses, the right half of the encephalon weighed nearly 15½ grammes more than the left; the man was presumed to be left handed (though it could not be definitely ascertained), because the muscles of the left arm were demonstrably better developed than those of the right. In the other case, where the right half of the brain weighed 4.55 grammes more than the left, the measurements of the left arm were greatly in excess of the right. He says the arch of the aorta does not form one continuous or unbroken curve, but is made up of three segments of circles, each differing in the intensity of its curve. The first segument begins at the base of the left ventricle, and terminates where a line carried in the axis of the ventricle into the aorta would impinge upon its upper wall. Just at this point is the dilatation known as the sinus magnus. This is the first retarding angle of the blood current, and it is here that it strikes with the greatest velocity against the aortic wall after it is driven upward by the ventricular systole. It is not doubted but that the blood pressure is greater here than at any other point, for two reasons: 1st. There is a natural dilatation at this point due to pressure; and 2d. This portion of the aorta is oftenest the seat of aneurismal dilatation. The innominate, left carotid and left subclavian arise in rapid succession from the transverse segment just beyond this sinus. The innominate, with its calibre larger than the left carotid and subclavian combined, is given off nearest the sinus magnus, and in its first portion is more favorably situated to invite the ascending column of blood than either or both of the other vessels. This portion of the blood current (which is deflected by the first retarding angle—the function of the first and second segments of the arch of the aorta) passes most readily into the innominate, and strikes the second retarding angle on the left upper and anterior wall of this artery,

at a point about one centimetre above its origin. From this point the deflection is in the axis of the arch of the last portion of the innominate, which is backward and upward and to the right, and is directly continuous with the arch of the right subclavian. It will be observed that while the right subclavian is a direct continuation of the last part of the innominate, the right carotid is derived from the anterior surface of the innominate, and travels in an oblique direction upward and towards the carotid canal and away from the axis of the blood current in the innominate. By virtue of its more fortunate position than the right subclavian, it receives the greater part of the blood which enters the innominate; whereas the vessel going to the left arm comes off from the transverse segment of the aorta at almost a right angle to this portion of the arch, and consequently at the same angle to the current of blood which passes along this portion of the aorta. Its origin and direction is such that the current of blood cannot enter it so rapidly as its more fortunate fellow of the opposite side. After making one hundred dissections, the author was satisfied that the arteries which carry the blood to the left side of the brain are the larger as a rule, bearing out a similar statement made by Ogle. There is no doubt but that a prolonged and energetic effort to use the left hand, even in those of us tenaciously right-handed, would succeed in making us equally as expert as with the now preferred hand; but this would be the result of severe mental and muscular training. It is accepted that mental effort increases the flow of blood to the brain. This surplus of blood is due to relaxation of the vaso-motor nerves of that side, which, by constant effort, would become a natural and uniform condition, resulting in enlargement of the vessels of that side of the encephalon and an actual increase of brain weight. In such cases the excessive weight of the right half of the brain would be the effect, and not the cause, of left-handedness. As all bodies with the liver on the right side are not right-handed, so then would we naturally not expect to find all people with their organs transferred left-handed. The influence of heredity is also probably felt. Hyrtl cites two cases of left-handed people with the viscera transposed.

Shortening of Bones after Fracture, etc.—The medical report of a recent suit of malpractice in Brooklyn city will, I think, be interesting to you. One of its most esteemed practitioners attended an injury of the hip. There was found afterwards shortening to the extent of one-third of an inch. At the time of the trial, in addition to the testimony of the defendants as to the original character of the injury and their treatment, Drs. Frank H. Hamilton, Henry B. Sands, Joseph C. Hutcheson, George K. Smith and John G. Johnson testified as a commission appointed by the court, along with other important matter, that "the possibility of normal asymmetry of the limbs was now an established scientific fact."

Origin of Obturator Artery.—Dr. John A. Wyeth, in his essays on surgical anatomy, records as the result of numerous dissections made by him, that the obturator artery is derived from the deep epigastric in females in one of two or two and a half cases, and in males in one of four or six cases. When having this origin, he states that it turns abruptly down in the outer side of the femoral ring, being intimately associated with the sheath of the external iliac vein, in such a manner that it would be exceedingly difficult for a femoral hernia to insinuate itself between it and the iliac vein, so that it would become looped around the sac of such a hernia. Gray, in his *Anatomy*, states that the obturator arises from the epigastric in one in every three and a half cases, and that it occurs oftener in female subjects. The variation as stated by Dr. Wyeth, those of us who have studied the subject were, I think already prepared to believe. Its close adherence to the sheath of the iliac vein, as above described, would, it has been stated, in some measure be controverted by the unfortunate cases in which the operation for the relief of strangulated hernia has been complicated with division of the obturator artery.

Cerebral Arachnoid.—A recent article of Dr. Benj. J. Westbrook, speaking of the arachnoid membrane of the brain says: "It is continued outward on the cranial nerves to their point of exit; but instead of being reflected upon the dura mater, as was formerly supposed, it forms a sheath for the nerve and passes with it out of the cranium. A space is left between the dural and arachnoid space, which may be injected from the subdural space, while the space between the arachnoideal sheath and the nerve may be injected from the subarachnoideal space. These sheaths in the optic nerve remain distinct. The space between the dura and arachnoid was formerly called the *cavity of the arachnoid*; but since it has been demonstrated that the arachnoid is now reflected upon the inner surface of the dura, it is known as the sub-dural space. This space contains a small quantity of serous fluid. It does not communicate with the subarachnoid space." In a foot-note the author also refers to Luschka, Axel, Key and Retzius.

Functions of Brain.—Dr. Landon Carter Gray, in an important anatomical paper, in referring to the intelligence of the spinal cord, remarks that "we have come to learn that each group of cells, perhaps each cell, in gray matter represents a certain kind of intelligence, and that these cells are probably in communication with one another by means of white fibres. It is the sum total of these intelligences that imparts to the cord its characteristics as an organ. As each one of these cellular groups and its adherent intelligences is more or less independent of all others, so the combined intelligences of collections of gray matter is independent of all other collections of gray matter, and it is a recognized fact that the spinal cord

has a function of its own. This has been exemplified by experiments upon headless frogs and decapitated human beings. He says cut off the head of a frog, permit to recover from the shock of the operation, then pinch its skin and it will hop away, or throw it into the water and it will swim. Place a drop of acetic acid upon the belly of such a frog, and it will endeavor to brush away the irritation with one foot. Now amputate the leg of this foot at the knee, the animal will make several futile attempts to reach the irritated spot with the stump, and failing, will after some hesitation make use of the uninjured limb for this purpose. This well known experiment of Pflugh's has often been repeated. Robin witnessed some most instructive phenomena in a criminal, whose head had been removed an hour previous at the level of the fourth cervical vertebra. The skin around the nipple was scratched with the point of a scalpel; immediately there ensued a series of rapid movements in the upper extremity, which had been extended upon the table; the hand was brought across the chest to the pit of the stomach simultaneously with a semiflexion of the forearm and inward rotation of the arm—a movement of defence as it were. All this teaches us the more clearly to understand that it is the intelligence of the cord's gray matter that is called into play in a thousand actions that must take place without the aid of that conscious intelligence which we call mind. The intelligence of the spinal cells is quite sufficient to enable a man to walk, to play on musical instruments, to become experts in handiwork, to ride on horseback whether awake or asleep, to become acrobats, and to unconsciously acquire such a handwriting that its minute peculiarities shall be unerringly recognized by the trained eye. Further on in this interesting paper he adds that until shortly ago, anatomists have assumed that the decussating fibres of the cord were always of the same number relatively to the non-decussating fibres, but that among the most important of the discoveries known, for which we are indebted to Flechsig, is the one that this proportion is extremely variable. Two extremes are found. In one all the fibres of the motor tract extend to the lateral pyramidal columns of the opposite side of the cord, there being no anterior pyramidal column (or column of Turck). In the other only 10 per cent. passed to the lateral pyramidal columns, 90 per cent. descending upon the same side as the column of Turck. Between these extremes all manner of variations are found to exist, from which is furnished the following table:

1st. Total decussation (cases of entire lack of the column of Turck).

2nd. Semi-decussation of one pyramid, with total decussation of the other. (*a.*) Semi-decussation of the right pyramid. (*b.*) Semi-decussation of the left pyramid.

3rd. Semi-decussation of both pyramids. (*a.*) Less than 56 per cent. of each pyramid, or of both, remains non-decussated. (*b.*) More than 50 per cent. of each pyramid, or of both, remains non-decussated.

M. Brown-Séquard has collected a large number of cases to prove that lesions upon one side of the brain will sometimes produce paralysis upon the same side of the body.

Dr. Edward C. Seguin, speaking of the same subject, has remarked that "a most important law, discovered and abundantly proved by Professor Flechsig, of Liepsic, is that of *variability of pyramidal decussation*. He found that in most his specimens the crossing took place as above described, the great majority of pyramidal fibres from the anterior pyramid crossed the median line, while a smaller number remained uncrossed and constituted the direct pyramidal column; but in one of the fœtuses he examined this was reversed, *i. e.*, the direct pyramidal column was much larger than the crossed column. In several instances he found a degree of equality between the two columns. He concludes, and I certainly agree with him, that we must look upon the old law of decussation of fibres as liable to rare but remarkable variations. Whilst we acknowledge ourselves as interested and instructed by these valuable studies, we nevertheless desire to express the opinion that perhaps future investigation will show a middle ground more correct than that held of old or advanced by more recent authors.

A dissection of 30 arms by Dr. J. F. Walsh, leads him to publish, as the result of his observations, certain matter that would lead us to infer that the origin of the muscles of the forearm varies considerably, at times, from that published in the text-books.

Ever since certain authors published what are called landmarks in anatomy, that subject has been growing more and more in importance, till now teachers of anatomy have regular clinical instruction for their classes without which no professor can make his course complete. Holden, in his "Medical and Surgical Landmarks," very aptly states that in clinical teaching we often have occasion to point out in the living these parts. By landmarks, it is meant to indicate surface marks, such as lines, eminences, and depressions, which are guides to, or indications of deeper seated parts. It has been found that many, even advanced students of anatomy, are not so ready as they ought to be in their recognition of parts when covered by skin; students who may be familiar enough with bones, muscles or blood-vessels or viscera in the dissected subject, are sadly at fault often when they come to put this knowledge into practice. Students ought to be made to readily comply with the tests suggested by the distinguished writer, viz.: Put a finger on the exact place to feel for the head of the radius; the coracoid process of the scapula; the tubercles of the scaphoid bone in the foot; compress effectually the main arteries—chalk the line of their course; map on the chest the position of the heart and the several valves at its base; trace along the walls of the chest the outlines of the lungs and pleura;

point out the bony prominences at the joints and their relative positions in the different motions of the joints; designate the various muscles and tendons which can be seen or felt as they stand out in relief or remain in repose; introduce the finger into the several orifices of the body and say what parts are accessible to the touch. I cannot discuss this subject without quoting briefly from an article by Dr. W. W. Keen. I will bring to your notice only one of his experiments; its importance I think will greatly impress you. He says: Stand with your back against the wall, keep the pelvis fixed, and then flex the knee as far as you can on the trunk; you will see you can almost make the knee touch the belly; but observe that the leg is flexed on the thigh as is the thigh on the pelvis. Now vary the conditions, flex the thigh as before, but keep the leg extended; you will see that the heel can only be lifted a short distance from the ground, and any effort to carry the right leg higher will produce a sharp pain behind the knee. But flex the knee as before, and you can carry it as high as you please—because the raising of a rigidly extended leg stretches the ham string muscles, and when they have once reached the limit of their natural extension, what Professor Cleland calls their "ligamentous action" comes into play. The distance from the tuber ischii to their tibial insertion is increased by flexion up to a right angle some 6 or 8 cm., or even more The experiment can be reversed; keep the knee rigid and try to bend over and touch the ground with the fingers—only a few, and those chiefly trained to it by practice, can do so—flexion of the pelvis in the right leg is limited by the ham strings, as was flexion of the right leg in the pelvis. Try a similar experiment with the wrist. The fingers being extended, flex the wrist, and you will see that in general it can be flexed to a right angle. Next extend the wrist, and then flex it again, but not now with the fingers extended, but made into a fist. Instead of reaching 90°, you will see that flexion scarcely passes beyond 30° or 35°, though in some it may, though rarely, pass even to 60° or 70°. In other words, the extensor muscles, by making a fist, are stretched nearly to their limit, and on flexing the wrist 30°, their extreme limit was reached and flexion was arrested. Teaching us the lesson that in all passive motion (as to prevent anchylosis, or after fracture of the thigh, or at the wrist, etc.) we must be careful not to outstep the bounds of nature. We must not flex the wrist with the fingers already flexed, but extended; nor flex the thigh with the leg not extended, but flexed, and thus you will save needless, nay, hurtful torture, inflicted by injudicious passive motion. To ascertain the limit in each individual case is easy, as we can always "take the bearings of the other limb," as was suggested by a shrewd captain of a vessel when asked as to how he would treat a fracture when at sea. Look at a child sitting on the floor and see how, without any effort (without even leaning back), he can raise his heels

from the floor, making the hips the apex of an acute angle between the leg and the trunk. The facility, too, with which young children can put their toes in their mouths, every one knows. This dexterity and flexibility does not only come from shorter legs, but from an anatomical difference in the structure of the muscles of a child from that of an adult. Starting from adult life, as we go backwards towards adolesence, youth and infancy, we find progressively more muscular tissue and less tendon in the muscles, that is, more of the contractile and elastic tissue and less of the inelastic. With every year from birth to old age, the fibrous tendon invades the belly of the muscles and reduces the suppleness of the joint and sinews. The caution given, then, as to passive motion, is to be modified somewhat by the age of the patient."

Fractures.—An item about fractures before we close. It is now asserted (M. Tillaux) that it is a pathological law that spongy, bony tissue is much less resistant than the ligaments. The latter, when strongly distended, almost always tearing away the portion of bone to which it is attached.

Large Skull and Brain.—Through the courtesy of Dr. Randolph Barksdale, Superintendent of the Central Lunatic Asylum of this State, I am enabled to report for your consideration an autopsy that has an anatomical bearing of unusual importance. The case was that of a colored man named Edmond Waller, by occupation a laborer, and a native of Charlotte county, Va. He was admitted to the asylum in 1872, to be treated for insanity, and believed to be a murderer, and was after a brief residence discharged as cured in April, 1873. Shortly afterwards his disease returned, he again committed murder, and was re-admitted to the asylum in 1873; remaining till his death, May 15th, 1881, at which time he was 32 years old. He was 6 feet 2 inches tall, but of spare build, and physically healthy until within the last two months of his life, when he was seized with phthisis pulmonalis, marked by constantly recurring hæmoptysis, and accompanied by formation of pulmonary abscesses, which gradually but steadily brought him down, till finally he sunk from prostration due to excessive bleeding. At the *post mortem* held at the asylum in the presence of Dr. Randolph Barksdale, Dr. R. G. Cabell, Jr., J. B. Marye and Messrs. Ed. McCarthy and G. C. Lane (then second course medical students, but now Doctors of Meidcine), the brain was taken from the skull, covered with its membranes, except a small patch from the cerebellum; it was placed to one side and drained for two hours of fluid and blood, after which it weighed 70 ounces. It was estimated by Dr. Barksdale and the other gentlemen present, that had it been weighed immediately after its removal and with the membranes entire, it would have reached 72 ounces. The brain substance itself was incised with the knife, and was found, so far as the naked eye could discover, to be perfectly healthy, as also were the membranes, the brain

fluids and surrounding bones. No minute or extended examination of the brain substance was made, however, inasmuch as it was considered too valuable a specimen to be mutilated unnecessarily. During his first residence in the asylum this man was considered, for a part of the time at least, as free from all insanity, and it is interesting to note that from the recollection of those who were daily with him then, his intelligence was considered in no way unusual or superior to other negroes of his class, he being apparently of the more stupid sort, and apparently a pure black. During his second residence at the asylum he was violently addicted to masturbation, and manifested, whenever opportunity offered, a homicidal tendency, together with a disposition to injure beasts.

In the Museum of the Medical College of Virginia there are fifty-four complete articulated skulls. From this collection I collected one that was typically Caucasian, and another typically that of a negro, and made certain studies of these two with that of Edmond Waller's that were perhaps sufficiently interesting to relate. Carefully stopping the foramina leading from the cranium with cotton, I then filled them all with clover seed,* different segments were filled with the seed, the balance of the cranium remaining empty. The results of these investigations are shown by the following table:

	Weight of skull bone.	Weight of clover seed required to fill entire cavity.	Weight of seed — anterior segment of cranium.	Difference between 2d preceding weights, or weight of seed in posterior segment of cranium.
Ed. Waller's skull....	3 lbs.	3 lbs. 15 oz.	1 lb. 13½ oz.	2 lbs. 1½ oz.
Caucasian skull.....	1 lb. 5 oz.	2 lbs. 14½ oz.	1 lb. 8 oz.	1 lb. 6½ oz.
Negro skull.....	1 lb. 4½ oz.	2 lbs. 7 oz.	1 lb. 5 oz.	2 lbs. 7 oz.

OUTSIDE MEASUREMENTS.

	Antero-Posterior Diameter.	Transverse Diameter.	Vertical Diameter.
Ed. Waller's skull.....	8¾ inches.	6⅜ inches.	6 inches.
Caucasian skull.....	7¼ "	5½ "	5 "
Negro skull	7¼ "	3 "	4⅞ "

* This particular kind of seed was chosen because of its general, uniform weight for a given bulk. For example, two tumblersfull of the seed used were taken indiscriminately from the measure and were placed, one each, on the respective sides of a pair of scales. They balanced nicely. Millet seed, the kind generally used in such investigations, do not give such uniformity in weight, even when perfectly sound, and are constantly found defective because of their hulls having been broken by insects, mice, etc. As a matter of interest, I will state that one cubic inch of clover seed weighed one hundred and ninety grains. The general volume of cavities measured as above can be easily calculated by those who choose so to do. In making these measurements and weights, I was kindly assisted throughout by Dr. J. R. Wheat, Superintendent of the "Retreat for the Sick," Richmond, Va., and in the selection of skulls for comparison by Dr. Francis D. Cunningham, late Professor Anatomy Medical College of Virginia.

The great excess of the size of this skull is apparent by a comparison of these measurements, not only as a whole, but also in all of its parts. Without going into the mode and manner of ascertaining such matters, I will remark that its unusual size is in no way sufficiently accounted for by the additional height possessed by this individual over the average man, and his brain, so far as seen, was not enlarged by any pathological condition. The case is certainly an exception to the general rule, that intellect is in proportion to the size and weight of the brain. By outside measurement its diameters were in most instances an inch more than those of the other skulls. The capacity of the entire cranial cavity was equivalent to the bulk of over a pound more of clover seed than that of either the negro or Caucasian, but it will be observed that this excess was situated chiefly in the posterior segment of the skull.

Gray, in his Anatomy, 1878, states that "the prevailing weight of the brain in the male ranges between 46 and 58 ounces." The maximum weight in 278 cases was 65 ounces, and the minimum 34 ounces. Cuvier's brain weighed rather more than 64 ounces, Dr. Abercrombie's 63 ounces, Dupuytren's 62½ ounces.

REPORT

ON

ADVANCES IN SURGERY.

By MEADE C. KEMPER, M. D., Goshen, Va.

Many surgical procedures and principles, claimed as new or orginal at the present day, are known to have been, either partially or completely, directly or indirectly, recognized at some period of the past; and there are but few of those acknowledged to be original that are not seriously questioned in many respectable quarters, and still fewer that are accepted by the profession as positive additions to our knowledge and resources.

When one remembers that fossil skulls have been found in Peru with apertures made with the conical trephine; that the ligature was used by Fabricius in the seventeenth century, and even recommended by Scultetus; that acupuncture was familiar to surgeons in the latter part of the seventeenth century; that the production of anæsthesia for surgical purposes was common in Spain in 1498; that antiseptic drainage tubes were used by Hippocrates; and that Credé's method of expressing the placenta has long been in familiar use by the old squaws of the Kiowa tribe of Indians—he feels helplessly inclined to believe the familiar old aphorism that "there is nothing new under the sun," and finds it very difficult to determine what should rightfully be called recent, and what is a substantial advance.

Antiseptic Surgery.—In general surgery the chief attention of the most prominent operators has been given to the question of Listerism. Bryant, Spencer Wells, Holmes, Lister, Sir James Paget, MacCormac and many others abroad and at home have debated this question in lectures and with the pen, but so far the results are not entirely satisfactory. Enough has been demonstrated, however, to show that dogmatic expressions on the part of obscure and relatively inexperienced men are not only unwise, but cal-

culated to render them contemptible. When the problems unsolved are so difficult and intricate as to justify hesitation on the part of the wise, the distinguished and the great, it is not only ludicrous, but ridiculous, to see those too small to fill even a small chair declare, *ex cathedra*, their petty opinions and valueless predictions. Something positive and reliable, however, has been reached. It is true that Runke and Klebs have proved that organisms develop about and underneath antiseptic dressings, but Cheyne has proved that there are two kinds or organisms principally, the bacteria and micrococci, and that they are not interchangeable. He has proved that while bacteria are always associated with putrefactive changes, the presence of micrococci is not indicative of putrefaction or decomposition. And that while micrococci, which are not indicative of putrefaction, may be found under antiseptic dressings, the bacteria, whose presence indicates always putrefactive changes, are never found where antiseptics are freely used. The presence of micrococci after Listerian methods of dressings, therefore, does not prove any failure of antiseptics, for these organisms do not spring from putrefactive forces; but the bacteria organisms, always to be seen where putrefaction occurs, are never seen where antiseptic dressings are efficiently prepared and adjusted. This is a positive advance.

Antiseptic and Absorbent Dressings —In his remarks on antiseptic dressing, published in the *New York Medical Journal*, Dr. F. Weir makes the following statements: Experience has shown that the careful preservation of all carbolized material is imperative. The resin contained in the various mixtures mentioned below permits the evolvement of carbolic acid to take place slowly; yet, even when such precautionary measures as enveloping the prepared dressings with rubber cloth or with oiled silk are used, a deterioration of the impregnated material will surely take place. In the *American Journal of Medical Sciences*, for April, 1879, Dr. Weir called attention to the advantages of carbolized jute over Lister's carbolized gauze—not only in accommodating itself to the inequalities of surface in certain parts of the body (as, for instance, the groin and the region of the breast and axilla), but also being cheaper and more readily manufactured. In the latter respect particularly, he again begs leave not only to commend the prepared jute, but also to testify to the excellent gauze that can now be made off hand by means of a formula that has recently been made known by the German surgeon, Von Bruns. This is made by immersing gauze (cheese-cloth) or coarse muslin, or even mosquito netting, in a mixture consisting of 400 grammes of powdered resin, two litres of alcohol, 100 grammes of carbolic acid and 80 grammes of castor oil. The resin is dissolved by heat in the alcohol, and the other ingredients are then added. The gauze thus prepared is even softer than when made after the formula of Lister, which, it is well known, can be obtained only with difficulty by

the practitioner far from a large city. The jute is made by taking, for each pound of jute, 50 grammes of carbolic acid, 200 grammes of resin, 250 grammes of glycerine, and 550 grammes of alcohol. After immersing the jute in this mixture, prepared by first melting the resin in the alcohol by warmth, and then adding the acid and glycerine, it is dried, and can be immediately used; or it can be made by the cheaper method resorted to in the New York and Roosevelt Hospitals, consisting of the replacement of of the alcohol by benzine in the proportions of 10 per cent. of carbolic acid, 40 per cent. of resin, 10 per cent. of paraffine, and enough benzine to moisten a pound of jute. The sum of his conclusion is, that new carbolized material can be easily made by any practitioner, and that it should be made in comparatively small quantities—not kept on hand too long—and should be preserved in a box in a cool place, tightly rolled up in a rubber cloth, oiled silk or protective.

Clinical experience has demonstrated the great therapeutic value of the absorbent materials Discharges drain through them so readily that wounds are kept clean and the surrounding parts dry. Union rapidly and painlessly consolidates under the elastic pressure. The absorbent materials lose none of their physical properties when treated with borax, iodine, tannin and similar substances. Besides the substances named, benzoic and carbolic acids have been employed, and we now have gauze and cotton-wool tissue, pads and bandages, perfectly absorbent and elastic, and powerfully styptic and antiseptic.

The perfect softness and elasticity of these absorbent materials are of the utmost practical value and comfort. These properties render possible, with the most perfect safety, the application of that elastic compression which, with rest and position, is so potent in relieving local congestion and inflammation. I have no doubt, in practice, these absorbent and antiseptic gauze and cotton pads will prove very safe, convenient, and comfortable. To have at command, at one and the same time, dressing materials suitable for medical, surgical, and obstetrical purposes, combining such important physical and chemical properties as elasticity and anti-putresence, is a matter of very great and practical importance.

Oil of Eucalyptus as a Substitute for Carbolic Acid.—After referring to the *dangers of carbolic acid poisoning*, which necessarily attend Lister's method, Schultz offers, on purely theoretical ground, and without having tried it in surgical practice, the oil of eucalyptus as a substitute for carbolic acid. He believes that in this substance an antiseptic is offered which possesses the four cardinal virtues necessary to supersede the other: (1) antiseptic properties; (2) convenience; (3) cheapness; (4) harmlessness. With regard to its power, he refers to the experiments of Bucholtz, according to whom a solution of the oil of eucalyptus, in the proportion of 1.666.6

prevented the development of bacteria, as well as did carbolic acid in the proportion of 1 to 200; also to those of Siegen, showing its power against septic fever artificially produced in dogs by the injection of pus; and to the work of Binz, showing the action of the oil in preventing the wandering of the white blood-corpuscles from the vessels, and as an agent against suppuration. It prevents putrefaction; blood mixed with it, in the proportion of 1 to 300, remaining after ten days is completely odorless. With regard to its convenience, the oil made from the leaves, either crude or refined, has an agreeable odor, dissolves readily in alcohol or oil, and mixes freely and perfectly with paraffine. It is cheap, as the tree grows in large forests in Australia, and may be cultivated in the temperate zone. Lastly, and most important, it is harmless. Siegen took five grammes of the refined oil (eucalyptol) in the course of two hours and a half without the least harm; and Schulz injected subcutaneously 4.5 grammes into a small dog without producing any symptoms. For comparison, parallel experiments were made with the oil and the acid, in which three decigrammes of the acid, subcutaneously injected, caused death in a dog, while the same quantity of oil was absolutely harmless to a much smaller animal, and did not cause abscess. He therefore finds in eucalyptus all that could be desired theoretically. The wound may be covered with lint soaked in a ten per cent. solution of the oil in olive oil, and over this may be placed a gauze made with paraffine, similar to the carbolic gauze, except that fifty per cent. of the oil is used instead of the acid. It makes a sufficiently fine and permanent watery emulsion for use in any spray apparatus.

In this connection, I would state that Dr. Hunter McGuire, of Richmond, recently made some experiments with *chloral hydrate*, which satisfied him that it might be used as a substitute for carbolic acid. He proposes, I believe, to use it hereafter in ovarian tumor operations.

The Whale Tendon Ligature, as a substitute for the catgut ligature of Lister, has been recently brought to the notice of the profession by T. Ishiguro, M. D., Chief Surgeon of the Imperial Japanese Army. The mode of preparing the ligature, he says, is as follows: "First, a whale's tendon is dissected out by the points of needles, and teased out until the fibres look very much like those of hemp. Secondly, the longest and finest fibres among them are selected, and they are then spun together as an ordinary silk thread." The ligature so made was subjected to the following tests: "First, a weight of four pounds and four ounces was suspended on a cord of one metre in length and .18 gramme in weight, but it was not broken." "Second, the ligature was boiled for seventy-two hours, and then kept at blood heat for five days, but only showed a slight expansion or softening, without the least dissolution or loss of strength." "Third, the ligature was soaked in a solution of pepsin (two drachms), dilute hydrochloric acid (one

drachm), and water (five ounces), and then kept at the temparature of the body for twenty-four hours, but showed not the least sign of dissolution." "Fourth, it was tested likewise by soaking in acetic acid and lactic acid (both in a diluted state) and also in liquor potassæ, in all of which cases the strength of the ligature was proved by like results." "Fifth, the first actual trial was made upon a patient in whom excision of the femur was necessary. In this case one of the ends of the ligature was cut off close to the knot, while the other was left hanging out of the wound. After a lapse of seven days an examination was made, and it was found that not the least trace of the ligature could be detected. Subsequent trials proved that three days after the application were quite sufficient for the full absorption of the ligature." Trials were then made as to the rapidity of its absorption, for a "a too speedy absorption would cause secondary hæmorrhage." In the amputation of a leg, the ligature was applied, and there was not the least manifestation of secondary hæmorrhage; a like success also followed in the ligature of the femoral artery.

Abdominal Surgery.—Prof. Von Nussbaum is well-known as a bold and fearless operator. He has already introduced many new operations—among others nerve stretching and rectotomy, which our forefathers would hear of with something akin to incredulity. Now we find him attempting to remove the pylorus for what was diagnosed as cancer. On cutting down on it, the pylorus, however, proved to be healthy, and the tumor or induration was found to affect the liver. Nothing daunted by the mistake, Nussbaum, who was conducting his operation under the strictest antiseptic precautions, decided to incise the organ and put in a drainage-tube, in the hope that irritative softening might ensue, and so lead to its absorption. It was in an address before the Munich District Medical Society that he referred to this subject and to peritoneal surgery in general. In a manner all his own, the celebrated operator contrasted the results of peritoneal wounds under the present methods of treatment with those which were formerly obtained under the older methods.

He says (*Aertzliches Intelligenz. Blatt*, January, 1880), "When now-a-days we read that the peritoneum may, fearlessly and with impunity, be punctured, incised, lacerated, bruised, or burnt, provided we keep off all infectious germs, one might be inclined to think that our predecessors had lived under a gigantic error in regarding abdominal injuries as almost fatally dangerous, while in reality they have proved themselves to be quite unattended with danger, seeing that we now remove from the belly tumors weighing fifty to sixty pounds, the patient scarcely feeling ill the while, and not experiencing either elevation of temperature or even a rise in the pulse-rate." Fortunately, the facts are beyond dispute, and yet the olden surgeons were nowise in error, for peritoneal wounds were dangerous,

and in similar surroundings are to-day. "The difference between the old times and the present simply consists in this: that we have learnt the sources of the danger. An enemy whose strength and position are known is easily overcome."

Among the principal dangers attending this kind of injury must be reckoned, he says, the great susceptibility to the influence of cold which the perineum is known to possess. "This enormous, constantly moist surface, when exposed, leads to such a rapid cooling of the blood, that immediately reflex paralytic conditions of the heart, and even death, are threatened." The second source of danger is the almost unlimited power of absorption which the peritoneum possesses; and thus any exudation into it which may have undergone unhealthy metamorphoses is liable to bring about rapid and severe septic conditions. Thirdly, peristaltic action, by means of which any exudation that gets into the peritoneal cavity, an enormous surface, is stirred up and smeared over the whole of its contents. Fourthly, movements of respiration, the rise and fall of the diaphragm and small intestines aiding the absorption. Fifthly, peritoneal wounds are dangerous because of the little spaces which everywhere exist, into which secretions may find their way and lie hidden and decompose. And, finally, there is the danger of infection through the ill-smelling intestinal gases, which especially favor sepsis; and, he continues, even if the bowel itself be not injured, gases find their way in or out. Thus it is that the pus of all abscesses forming in the neighborhood of the intestines smell of fecal gases; and not only gases, but after concussion and its consequent paralysis, owing to the phenomena which attend it, an exosmosis of fluids may actually take place. On the whole, therefore, we see that there were good grounds for the dread which has hitherto always been felt of peritoneal injuries, whether accidental or applied by the surgeons for surgical purposes. Since, however, the causes of this great danger have come to be understood, and the means by which they may be overcome have been learned, the indications for operation, and the prognosis afterwards have been greatly modified.

Professor Nussbaum then considers enterotomy and gastrotomy, and the cases in which these operations may be practised. In speaking of cases of internal strangulation, he said that "thousands now lie in their graves who have died from this distressing disease, while surgeons stood by as mere lookers-on, unable to help their patients." For, although opium could relieve pain for awhile, it generally failed to cure the obstruction. And as regards laparotomy, formerly the mortality was 70 per cent., and that of Littre's operation 47 per cent., that of Aumssat 30 per cent., while those who did recover were, on account of their infirmity, often very miserable and quite unfit to associate in society.

Now, in consequence of greater skill, and of the experience of past oper-

ations, the results are much more favorable. He thinks that a small opening, just large enough to let out fæces, is all that is required at first; for often, after tension of the distended intestines has been relieved, the twist will right itself; or, if the obstruction be due to invagination, the gut will slough and come away. The opening is then allowed to close; but if a cure cannot be effected, the opening should be enlarged, and a permanent artificial anus established.

As regards gastrotomy, he speaks more hopefully. Quoting some Vienna statistics of cancer, he mentioned that of 903 cases affecting the stomach; 542 occurred at the pylorus; and of these about 60 per cent. offered favorable chances for operative interference. He pointed out that portions of the stomach and pieces of gut had been successfully removed in animals in many instances; and he believed that we were not only justified, but called upon, to operate when circumstances seemed to call for it.

Nussbaum thinks that with antiseptic precautions we shall be able to extend our peritoneal operations to an almost unlimited extent. He believes we may excise the pylorus, when cancerous, with confidence of success. If this should prove to be the case, we have, indeed, in antiseptics (so-called), a valuable addition to surgical science. But we trust that in this, as in other arts, discretion will be regarded as the better part of valor.

Cholecystotomy.—At the Royal Medical and Chirurgical Society, Mr. Lawson Tait recently reported the first successful case of this operation, which Dr. J. Marion Sims has the credit of introducing. The patient had been married eighteen years, had borne six children, and menstruation was normal and health good till the summer of 1878. At that time, she had spasmodic pains in the right side, aggravated by walking and lifting any light weight. A swelling, noticed in September, slowly increased, and during last winter pain became more intense, and she presented a cachectic appearance, suffering from incessant headache, sickness, and obstinate constipation. The seat of pain was over the right kidney, where there was a heart shaped tumor, firm and elastic, without fluctuation, tender to touch, and movable to each side. The urine gave only negative results. At a consultation with the author's colleague, Dr. Edington, no decided diagnosis was attempted, and the opening of the abdomen was agreed upon, which was performed on August 23d, in the middle line, to the extent of four inches. The tumor was found to be a distended gall-bladder, containing a white, starchy-looking fluid, and two large gall stones, one lying loose and the other impacted in the entrance of the duct and adherent to the mucous surface. The latter was removed after a tedious and very difficult operation (fully described in the paper). The stone and fragments weighed 6.11 grammes. The wound in the gall-bladder was stitched up to the upper end of the wound in the abdominal walls by continuous sutures, leaving

the aperture in the bladder quite open, and closing the rest of the abdominal opening in the usual way. The operation was performed antiseptically under ether. The patient rallied completely in a few hours, and the dressings of the wound were found stained with healthy bile. The flow of bile from the wound continued till September 3d. The wound was completely healed on September 9th, when the patient began to take solid food—up to that time the diet having been restricted to milk and beef tea. On the 30th, she went home quite restored to health. A temperature chart indicated the evenness and rapidity of recovery. An entire absence of symptoms of gall-stone rendered an accurate diagnosis impossible, but this was of less importance, as late improvements in abdominal surgery made an early exploratory incision for ascertaining the true nature of the disease feasible. The author, in stating that he always used rigid antiseptic precautions in his abdominal sections, expressed some doubts as to his success being attributable in any way to them.

Splenotomy is also a new feature in surgery—quite a number of successful cases having been recently reported. It is indicated in an enlarged, indurated and otherwise diseased spleen, when all other means of relief have failed, provided the patient has not leucocythæmia. It is also performed for laceration of the spleen, if the diagnosis is fully established and the patient has strength to bear it.

Radical Cure of Hernia by Injecting the Hernial Rings.—In a paper read before the Otsego County Medical Society, Dr. Joseph H. Warren, of Boston, reports a number of bad cases of hernia which were cured by injecting, hypodermically, into the hernial rings a combination of ether, alcohol, oak bark, and morphine. Many attempts have, in the past, been made to operate for the cure of hernia by injections. Among the operators, we find the noted names of Velpeau, Pancoast, J. Mason Warren, and others; but none except Heaton ventured to inject, hypodermically, without first cutting down upon the parts, and none were so successful as to warrant us in saying that they had discovered a radical and lasting cure, except Heaton. J. Mason Warren injected sulphuric ether; Schwalbe, of Germany, alcohol; and Heaton, oak bark. But our author feels confident that, by combining ether, alcohol, oak bark and morphine in his injections, he occludes the rings with less disturbance of the constitution than when a single fluid is used. This combination, while everting a sedative effect on the arterial system, possesses enough stimulating influence to cause a rapid and localized effusion of lymph which is readily organized into new tissue. The more plentiful, however, the effusion, the more we are sure of strong adhesions and attachments. The fibrinous bands are not unlike the cicatrix of a severe scald or burn, and they serve to draw and bind together the hernial rings and surrounding parts. In accidental or congenital herniæ,

occurring in infants and children up to the age of six years, he advises us to use the aqueous extract of oak bark; for children from five to fifteen years of age, the extract of oak bark should be distilled to the consistency of glycerin, with ten to the drachm of sulphuric ether. For old and long-standing herniæ—congenital or acquired—he uses the oak bark, distilled to the consistency of glycerin, with one drachm of absolute alcohol to four drachms of the extract, and one drachm of sulphuric ether, with one or two grains of sulphate of morphia. For three or four days after the injection, the patient passes through a slight feverish condition; the manifestations of local inflammation soon pass off, and the patient progresses rapidly towards recovery. The writer advises, as a precautionary measure, that a truss be worn for some months after the operation. The tissues are new, the adhesions fresh, and in no condition to be put to the test at once.

Czeruy's Operation for the Radical Cure of Hernia.—Of the many operations advocated for the radical cure of hernia, none have been proposed, thus far, that are free from objection of one kind or another. The advantages claimed by Czeruy for the operation adopted by him are, that the results are more certain, as the fibrous columns of the external ring are drawn close together, and an exact application of the sutures can be made, causing a narrowing of the internal aperture. The operation is as follows: An incision is made along the whole length of the hernia. If intestinal and reducible, the contents of the sac are returned to the cavity; if irreducible and intestinal, they are dissected loose and reduced, the sac being ligatured at the neck and cut off. When the contents are omental, they are included in the ligature with the sac. The fibrous columns of the external ring are drawn together by an interrupted suture of strong carbolized catgut. After the insertion of a drainage tube, the wound is closed with sutures and dressed antiseptically. This mode of procedure has been adopted in nine cases of inguinal hernia, without the occurrence of peritonitis.

Proctectomy for Cancer of the Rectum.—Excision of the diseased portion of the bowel for cancer of the rectum has, since the time of Lisfranc, found favor with surgeons. The operation had, however, fallen in disfavor, and has only been revived during the past few years. In cases judiciously selected, this method of treatment is of the greatest value, both as regards relief from suffering and prolongation of life. But to suppose that it is applicable as a method of treatment in every case of rectal cancer, is as unreasonable as the assumption that cancer should be removed by operation wheresoever situated. The operation cannot be considered in any way to rival or supersede colotomy; for as a rule it is applicable as a method of treatment for cases in which colotomy is scarcely admissible. Colotomy is a most valuable operation when the cancer is situated higher and causes

obstruction or intense pain; while, on the other, for excision to be successful, the disease must be strictly confined to the lower part of the bowel. No operation should be attempted unless there be a fair prospect of removing the whole disease; and this cannot be done unless the upper limit of the growth be fairly defined with the finger. Again, the disease must not have invaded the neighboring tissues to an extent likely to interfere with its complete extirpation. Rather longer portions of the bowel can be removed from men than from women. As a rule, however, four inches is the limit that can be safely removed.

Catheterization of the Larynx as a Substitute for Tracheotomy.—The practical point of interest is the catheterization of the larynx in preference to tracheotomy in a case demanding prompt action to prevent death from asphyxia.

The following points are noted in the *British Medical Journal* by William Macewen in its favor over tracheotomy. The air passing through the mouth, etc., becomes warm, moist and filtered. One of the greatest dangers in tracheotomy is pneumonia. In a few minutes after the tube is introduced into the mouth, it attains the same heat as the body, and its interior becomes covered with moisture, and offers an adhesive surface for particles passing. The following conclusions are arrived at:

Tubes may be passed through the mouth into the trachea, not only in chronic but in acute affections, such as œdema glottidis. They can be introduced without putting the patient under an anæsthetic. The respiration can be perfectly carried on through them. Deglutition can be carried on during the time the tube is in the trachea. The expectoration can be expelled through them. Though the patient at first suffers from a painful sensation, he soon becomes tolerant of the presence of the tube. The patient can sleep with the tube *in situ*. It may be used in operations on the face and mouth to prevent blood from gaining access to the trachea, and for the purpose of administering the anæsthetic. In all the cases tried it proved harmless, and the ultimate results were rapid, complete and satisfactory. Tubes of varying size must be used. It may be known to be in the trachea by feeling the instrument pass through the rings of the trachea, and by finding the air and mucous expectoration passing through it.

Extirpation of the Larynx.—Dr. Lange reported to the New York Pathological Society a case of extirpation of the larynx. The cause that necessitated the operation was a tumor in the larynx of a man aged seventy-four, in whom it had caused hoarseness, dysphagia and dyspnœa. About three months prior to the time of the report, Dr. Lange performed the operation, removing, with the tumor, the upper part of the larynx and the anterior wall of the œsophagus. Forty ligatures were required. The patient recovered. A plate of soft rubber was made to supply the place

of the parts which had been removed, restoring the anterior wall of the œsophagus. The tumor when removed was about the size of an orange. He could not say whether it was carcinomatous or not.

Dr. Lefferts remarked that he had seen the patient both before and after the operation, which was the first in America and the nineteenth on record. There could hardly be any doubt in this case as to the indication for the operation; nor was it so difficult as might be imagined. It might be asked, Why not resect the larynx to perform thyrotomy? He thought that there was too much latitude in this operation, and that some removed the larynx unnecessarily. The operation was first performed by Billroth, in 1873, who thought that it might be found useful for stenosis following syphilis replacing the natural organ by an artificial one; but the results had disappointed this expectation. Besides Dr. Lange's, there were three successful cases: The first was that of Bertini, whose patient was still alive; the second was that of Fuller, of Glasgow; and the third that of Schone, of Friebourg. In all of these the operation had been performed for sarcoma, and sarcoma seemed to be the only cause to justify the operation. Primary laryngeal cancer was a very rare disease; when it invaded the larynx it was generally pharyngo-laryngeal. In such cases, no one would feel tempted to imitate the heroic procedure of Langenbeck, and remove all the diseased parts. In primary laryngeal cancer, laryngotomy and thyrotomy were only prophylactics. Bruns reported nineteen cases with eighteen deaths—the successful case being that of Dr. Sands. Hence we are thrown back on extirpation, and if the cases were properly selected, he had no doubt that the statistics would improve, and the operation would not be so universally condemned.

A New Subcutaneous Method of Operating for Removal of Growths from the Interior of the Larynx.—A simple, and therefore excellent, plan of operating on laryngeal growths is described by Professor Rossback, of Würzburg in the *Berlinger Klin. Wochenscrift*, No. 5. 1880. All the preparation required by the patient is that he shall have learned to be laryngoscoped quietly. He sits before the operator in the ordinary way, but with his head supported by a photographer's rest. He holds his tongue himself with the right hand covered with a rough, well fitting glove, and must take care not at the same time to hide the middle line of his neck by his closed hand. The operator either holds the laryngeal mirror with his left hand, or, in the case of a very manageable patient, fixes it in position in the pharynx by means of an appropriate stand. The mirror must illuminate the larynx well, and give a clear view of the part to be operated on, as well as the lower end of the epiglottis and the anterior commissure of the vocal cords. For the operation itself, a very sharp-pointed, delicate knife, with triangular blade and smooth cylindrical shank, is held in the right

hand and pushed through the medium lamina of the thyroid cartilage, a few millimetres below the lower angle of the thyroid notch, exactly in the middle line, into the larynx. The precise distance of the puncture from the notch depends on the seat of the growth in the particular case, and it varies from one to five millimetres below it. The point of the knife then appears above and close to the vocal cords. There are no blood-vessels of any importance on the anterior or posterior surface of the median lamina of the thyroid cartilage, so that no bleeding is to be feared; the hyaline cartilage also, of which it consists, is so easily penetrated, even in old people, and so seldom ossified, that scarcely any effort is required to make the knife enter the larynx through it. With the laryngeal mirror the entrance of the knife can be watched, and its movements regulated with the greatest ease during the necessary incisions, etc. The patient feels nothing except the external prick; he is not conscious of the presence of the knife in his larynx, nor does it excite cough, or, as a rule, any desire to swallow. Should deglutition occur, however, it is unnecessary to withdraw the knife and the latter should be retained between the thumb and fore-finger, the finger resting on the larynx, so that the hand and knife may follow the upward and downward movements of the thyroid cartilage. On the withdrawing of the knife the opening in the cartilage closes hermetically; the tiny skin around requires no other treatment than a small piece of plaster. A slight, dull pain is all the patient feels after the operation.

Prof. Rossbach uses knives of different breadths of blade, according to the size of the growth to be removed. Owing to their thin, cylindrical shank, they can be moved in any direction, and, if necessary, can be bent to meet special cases. He thinks his method applicable to a large number of operations which have hitherto been performed by the introduction of instruments through the mouth, and its extreme simplicity seems to me to justify his estimate of it.

Nerve-Stretching as a Therapeutic Measure.—Dr. James J. Putnam thinks the operation of nerve-stretching has now gained for itself a well-recognized place in the therapeutics of nerve diseases, and we have in it an operation of great value in many forms of neuralgia, in muscular spasm, and, perhaps, in neuritis; but, as yet, neither the indications for it, nor the best method of performing it, have been sufficiently defined. The questions which call for more definite answers are: What degree of traction can the various nerves of the body safely endure? Upon which nerves can the operation be performed with the best chances of success? Are central as well as peripheral lesions susceptible of cure in this manner? Are second operations upon the same nerve practicable? Does it make any difference whether the central or peripheral portion of the nerve is stretched? Is the effect of a series of quick, short pulls different from that of one prolonged

stretching? Does the existence of acute or sub-acute neuritis contra-indicate the operation? What are its attendant dangers? In what manner does the stretching act? What is desired is to produce a temporary, but not a permanent loss or diminution of functional power. While capable of great good, it is equally capable of harm. It diminishes the irritability of the nerve, and the time which elapses between an electrical excitation and the associated muscular contraction, is increased. It has been claimed that, besides the changes in the mechanical conditions within the nerve itself, the walls of the blood-vessels of the nerves are subjected to analogous changes of tension, pressure, etc., especially at their point of entrance into the nerve-sheath, and to this has been attributed the nutritive changes which take place in the nerve-tissue.

Nerve-Suture.—Recent experiments on animals have shown that a sciatic nerve divided and afterwards carefully united by sutures (Gluck, experiments on hens), regained its functions in seventy hours, and the pneumogastric in ten days. The nerve action is transmitted through an interposed substance of young connective tissue, not yet containing visible nerve fibres, but containing already, three or four days after the division, spindle-shaped cells, the protoplasm of which turns black after the application of osmic acid. When the ends of the divided nerve are immediately united carefully, a kind of healing by first intention takes place, and is completed in nineteen days. By this healing the fatty degeneration that takes place in the ends of the ununited nerves does not occur. The number of successful operations is yet very small, three or four carefully observed cases being all. It seems to be a necessary condition that the operation wound shall heal without suppuration, and consequently the suture must be made of cat-gut. Happily enough it seems as if the divided motor nerves, after being united, more readily regain their functions than the sensory nerves, a circumstance which is of great practical value as to the importance of the operation.

Transplantation of Bone.—The greatest discovery in surgery thus far in the year 1881, is that of Dr. Wm. McEwen. He has successfully transplanted bone—fragments of wedges of bone taken from patients for curved tibiæ—into the arm of a child whose limb was useless by reason of extensive necrosis. Two-thirds of the humerus had been destroyed and no repair of bone had taken place. A good, new humerus was the result, less than an inch shorter than its fellow.—*Proc. Med. Soc. Co. Kings*, August, 1881.

Oblique Incisions in Operations.—Dr. Packard calls attention to the advantage of oblique cutaneous incisions in avoiding scars and favoring immediate union. Two weeks previously, he had removed a large breast by oblique incisions, and had dressed the wound with adhesive plaster and cerate, after securing the vessels with cat-gut. On the fifth day the wound had healed from end to end, and there had not been enough pus to soil the

dressing. The method had been previously recommended by him elsewhere, as a method of avoiding scar; but as it seemed to promote union by first intention, probably because of the larger surface of contact, he desired to bring the subject to the notice of the profession.—*Trans. Phil. Acad. Sury.*

Skin-Grafting with Skin taken from the Dead Subject.—John H. Girdner, M. D., of New York, says, in *Medical Record*, July 30th, 1881, "Charles Joice, aged ten years, who lives in Morrisania, the latter part of June, 1880, while sitting on a door on which there was a steel hinge, was struck by lightning, and became comatose, in which condition he remained for several hours. He was brought to Bellevue Hospital and placed under my charge. When his clothes were removed, the skin came off his left arm and scapula, leaving a large, raw surface. This surface was treated by different means for some weeks, until a healthy granulating surface was obtained all over the affected part.

About this time, a healthy young German, who had attempted suicide by cutting his throat, was brought to the hospital, and died within a few hours. Six hours after his death, I went to the dead-house, and removed a portion of skin from the inner side of the thigh, where there was least hair, and the skin most delicate. Having cut this piece of skin into a great many small pieces, I applied them, and dressed the surface after my own method, which is to apply first, next to the grafted surface, a piece of the green protective, used in Lister's dressing; over this, I strap the ulcer with ordinary rubber or adhesive plaster, and over the whole, throw a roller loosely. The object of the green protective is to prevent the grafts from adhering to the plaster and from being torn off when the dressing is removed. The strapping is simply to make pressure, which must be firm and evenly applied.

After the dressings had remained on for four days, they were removed and after some little discharge had been washed off, I had the patient photographed. About one-fourth of the grafts had failed to take, and were washed off when the wound was cleansed. The remainder have attached themselves to the ulcer, and the lower and central portions of the ulcer on the arm are already covered with a thin, delicate skin, as a result of the fusing together of the little islands of skin, each graft serving as a point of departure for the formation of these islands. As in other and similar cases, cicatrization would have doubtless gone on to complete cure in a short time, but for an attack of erysipelatous inflammation, resulting from the low condition of the boy's general health and his exposure to other cases of that disease, which destroyed a large portion of the newly-formed skin, requiring subsequent graftings, but finally resulted in a cure, with much less of contracting cicatricial tissue, than is commonly witnessed after recovery from such extensive burns.

It seems to your reporter that any one who has witnessed, as I have done repeatedly, skin taken from the dead body several hours after death, return to life, adhere to a granulating surface, and with surprising rapidity send out prolongations of delicate skin in all directions, covering the surface with a new skin comparatively free from contractions, must agree with me that skin-grafting is in its infancy, and that when men of ability have given it more attention and found out the possibilities of the proceeding, we may expect to see frightfully contracting cicatrices following burns and nævi, removed by excision, and their places filled with a skin almost as perfect as the surrounding, and which has been removed from the dead or living body of another person.

Martin's Elastic Bandage.—Most excellent results are reported as following the use of this bandage in chronic eczema, varicose ulcers, psoriasis, and in fact, almost all troubles associated with dilatation of the blood-vessels, whether that increase is arterial or venous. By its use the redundant blood is driven out of a limb and its re-accumulation is prevented. In addition to this control of blood, the elastic bandage gives such support to capillaries and absorbents, that effusion is soon taken up, swelling disappears and ulcers close. The action is as striking in the chronic as in the acute; in an old ulcer as in a recent erysipelas; in a sprained ankle as in an inflamed finger; in an œdema as in a phlegmonous infiltration; in short, the products of inflammation more rapidly disappear under its action than by any means or measure heretofore in use.

Some care is necessary in selecting the bandage, as to its length, width and weight, and mode of application.

1. The limb should not be doubly covered except where the bandage laps.

2. The ordinary bandage of Martin is not too strong for the inferior extremities, but one of lighter make is better adapted to the arm and forearm.

3. The "Rubber Dam" is sufficiently heavy for the fingers, a thicker one acts too powerfully on the circulation and makes too great pressure on the granulations.

4. Children require a lighter bandage than adults. The variety suited to the arm of the adult will be heavy enough for the leg of the child.

5. The width of the bandage must be regulated according to the part to be covered. It may range from one to three-and-a-half inches.

But little force must be used in applying the bandage. The object is to control or regulate the circulation—not to prevent or obstruct it. In adjusting the heaviest elastic upon the leg, the weight is almost sufficient. Irregular pressure must be studiously avoided, and turns must press at all points equally. The sensations of the patient will often prove a reliable guide in adjustment.

Under the head of advances in the surgery of the genito-urinary organs, I shall be obliged to dwell as much upon modification as upon radical changes. As being among the most important, we will first notice—

Litholapaxy.—Dr. Bigelow demonstrated the great tolerance of the bladder to the prolonged use of instruments in skilled hands, and its intolerance of sharp fragments of stone; Dr. Otis demonstrated the feasibility of introducing very large instruments into the bladder; Clover demonstrated the efficacy of his syringe for the removal of the fragments. These demonstrations led to the prolonged use of the lithotrite and large evacuating tubes, and to the introduction of the operation known as *litholapaxy*. While too much credit cannot be given Dr. Bigelow, we should not lose sight of the fact that Dr. Otis paved the way to this discovery, and should share the honors. Without a doubt, it inaugurates a new era in the treatment of stone, marks an advance of no small moment, and curtails the field of lithotomy, leaving for it only two classes of cases:—(1) Patients under fifteen years of age; (2) patients who suffer from cystitis before the formation of the stone. Cases which will be benefitted by the thorough drainage of lithotomy. In this method we have an operation which rids the bladder of a stone as thoroughly as lithotomy, but if carefully practised, leaves no wound behind. Like all operative procedures, it has been rendered easier to perform, safer and more uniformly successful, as step by step, various little improvements have been added to the details of its performance. To show that this operation is founded on principles different from those which have hitherto been guides in performing lithotrity, it is only necessary to quote some of the directions of Sir Henry Thompson, who may be looked upon as the father and greatest champion of lithotrity. Thus, in referring to the use of the lithotrite, he says: "The mere sojourn of an instrument in the bladder is a source of irritation precisely corresponding to the length of time, within certain limits, it continues there. As a rule, then, commence with one introduction of the lithotrite, crushing four or five times during a sojourn of, say, two minutes in the bladder. Do not encourage the early evacuation of the fragments; for, by remaining in the bladder, they become somewhat water-worn, and so become less liable to irritate the urethra." In spite of the fact that lithotrity had the earnest support of this great surgeon, and its introduction was supposed to sound the death knell of lithotomy, statistics showed that death followed the one about as frequently as the other, and that the one could claim few, if any, advantages over the other. Divided, then, in its opinion as to the merits of lithotomy and lithotrity, the profession was ready to receive an advance of so unmistakable a character as litholapaxy. Even Sir Henry Thompson has yielded the palm of lithotrity to litholapaxy; has performed it in thirty-one consecutive cases, and speaks of it as a bold but happy idea, and

a decided step of progress. Old age suffers but little obstacle to its performance. Good results have been obtained where serious organic disease of the bladder and kidney existed. Indeed, it is clearly proven that, when in such cases the stone is the cause of the organic disease, the only hope is to remove it, and litholapaxy, well performed, will do it with less traumatism than either lithotomy or lithotrity. You will notice that I have spoken of this operation as being *well performed*. Upon no one point has more stress been laid than upon the fact that this operation is not easy of execution, and should not be undertaken by one not thoroughly skilled in the use of the lithotrite. Competent observers, however, fail to see in it any additional dangers to those which usually accompany simple lithotrity. Of course, the operation, being prolonged, one's vigilance is likely to become relaxed; but this is the fault of the operator—not of the operation. In this, as in all other operations, the best operator is likely to secure the best results.

Bigelow's improvements over Clover's evacuating apparatus, consists in providing a wide passage for the current passing between the bladder and exhausting bottle, and in furnishing a more forcible stream. Sundry improvements have been suggested over Bigelow's, the objects aimed at being to shorten the distance the fragments have to travel from the neck of the bladder to the trap. It is easy to understand that when the outflow ceases, part of the debris sucked from the bladder lies in the tubes, to be driven into the bladder again by the next inflow of water. Consequently, the nearer the trap or receiver can be placed to the neck of the bladder, the more rapid will be the removal of the fragments.

Associated in a most intimate manner with litholapaxy, is the early detection of the stone. There can be no question that all stones are primarily small, and capable of being crushed. If more attention is paid by surgeons to the early symptoms of stone and more careful examinations made, there is no reason why lithotomy should not become a thing of the past, and the domain of litholapaxy greatly increased. Much attention is now being paid to their detection, and a great advance is predicted in consequence of this attention. Every few months we read of some new *microphone*, with whose aid smaller stones and fragments are detected. Your reporter can see no reason why, in children, lithotrites, correspondingly small to the stones, should not be used. However small the stone, the symptoms speak loudly enough of its presence, and only need interpretation.

Attention has been called to the fact that litholapaxy is not adaptable to those cases of stone which were preceded and caused by cystitis. Dr. W. F. Teevan, of London, Eng., suggests a procedure in these cases which he thinks an advance over lithotomy. He first crushes the stone with a lithotrite; then performs external perineal urethrotomy, and removes the pulver-

ized fragments. By substituting external perineal urethrotomy for lithotomy, he substitutes an extra-pelvic and harmless, for an intra-pelvic and dangerous operation. These cases do not do well after litholapaxy, because the cystitis which was the primary disease will remain and cause a second formation of stone. These cases are benefitted by the permanent drainage of lithotomy; the external perineal urethrotomy fulfils all the indications of lithotomy with much less of its danger. The advisability of treating cystitis by cystotomy has recently excited considerable interest; but as yet the question of its advisability is by no means settled. The thermo-cautery has been used to perform external perineal urethrotomy, and is found to simplify the operation very much. The indication in cystitis is to secure complete rest for the inflamed viscus. This is admitted by most writers. The point of diversity consists in the different expedients resorted to to secure this rest. While some perform lateral and median cystotomy to secure drainage, others secure by frequently introducing, or by permanently retaining in the bladder, a soft catheter.

In **Hydrocele, electrolysis** has accomplished some cures. It acts in hydrocele as it does in ovarian cystic and other cystic tumors.

Few observers of much experience have failed to note the occurrence of paraplegia, epilepsy, idiocy, cystitis, incontinence of urine, stone, etc., as a result of the reflex irritation from a long and tight prepuce. The necessity of examining the prepuce in certain forms of nervous disease occurring, especially in boys, cannot be overestimated. Brilliant results frequently follow circumcision; but frequently, time, patience and education are necessary to secure the full effect of treatment in these cases.

Nephro-lithotomy or Nephrotomy, has recently been successfully performed, for the first time upon a healthy kidney, by Mr. Henry Morris. The disease was nephritic colic. The presence of a stone was suspected, and an incision being made, an oxalate of lime calculus, weighing thirty-one grains, was removed from the pelvis of the kidney. The case was especially important, because it showed that a healthy kidney could be cut into without exciting hæmorrhage or causing a urinary fistula. The facts established by Mr. Morris will doubtless lead to a more frequent employment of the operation. Even in case the diagnosis proves false, and upon exposure of the kidney no stone is found, no harm need ensue, for the wound readily heals, and the counter-irritation produced by it has a beneficial effect.

Nephrectomy, the removal or extirpation of a kidney, is to be thought of only when its fellow continues its function without impairment. It is indicated—(1) in cases of nephritic hæmorrhage dangerous to life; (2) in suppuration of the kidney threatening to become fatal from exhaustion or septicæmia, if nephrotomy either is impracticable or has not had the de-

sired result; (3) in case of adventitious tumors of the kidney, and (4) in case of incurable fistulæ of the ureters.

Varicocele.—The fact seems to be pretty well established that all cases of varicocele do not require operative interfence—only those cases demanding it where the varix is large and is getting larger in spite of palliative treatment; when it is producing atrophy of the testicle, absence of semen, mental troubles which cannot be reasoned out of the minds of the patients, pain, interference with proper exercise and necessary work, where the opposite testicle is lost, or where it interferes with acceptance for Government services. Erichsen, Gross and Paget have noted the bad results which sometimes follow operations after older methods, and Paget goes so far as to say, "No varicocele, to the best of my belief, ever did cause impotence, or waste a testicle. Varicocele can, in a vast majority of cases, be perfectly well managed with a ring, or a truss or suspensory bandage, and cold water, and the operation may be wholly dispensed with; the more properly, because varicocele is not a mischievous disease, and has nothing to do with the impotence or other sexual distresses which patients ascribe to it." Beard claims that varicocele results from the spermatorrhœa, and does not, as is commonly supposed, cause it. Or, more properly speaking, it is a result of prostatic disease of which spermatorrhœa is only a complication. The irritation proceeding from the prostatic urethra causes relaxation and a wet-rag condition of the veins of the scrotum, usually on the left side. Dr. A. Pearce Gould, of the Westminster Hospital Corps, advocates the radical treatment of varicocele by the galvanic ecraseur. The operation, he claims, is painless after the first few minutes; is simple, effectual and introduces no new danger, and is free from the dangers common to the other method, such as œdema, inflammation and suppuration of the scrotum, pyæmia, etc. The section of the veins is completed at once, and there is no foreign body left in contact with the healing veins to get up undue inflammation. Their seared ends are closed at once and left in a condition of rest. The operation is very simple. First, feel for the vas deferens and grasp the veins in front of it with the left thumb and forefinger; transfix the scrotum at this spot between the ducts and veins with a narrow bistoury, and pass a needle armed with a platinum wire in the track of the knife; then return the needle through the same apertures, but this time in front of the veins, between them and the skin. In this way you have the veins in a loop of the wire. Then attach the ends of the wire to the ecraseur, and connect with the battery, using sufficient cells to cause a faint hissing noise. One cell of Grover's, or at most two, is sufficient. This step must be done deliberately. To protect the skin, let some cold water trickle over it. The after-treatment consists in elevation and perfect rest. The introducer of this method has resorted to it in eight

cases, and in all of them with success. Three things are to be avoided—haste in burning through the veins, burning the skin, and operating too near the tunico-vaginalis.

Sexual Neurasthenia.—History does not furnish a parallel to the present activity in the investigation of this new field. Otis, Beard, Sayre and others, have realized what discord reflected irritation from the genital organs, can bring about in the economy. There can be no question of the fact that phymosis, redundant prepuce, with smegma, contracted meatus and stricture, may and do excite a morbific condition which has been received in the nomenclature of diseases under the title of neurasthenia; and furthermore, that this neurasthenic condition may go further than mere nerve-tire, and culminate in want of co-ordination, paralysis, imbecility, epilepsy and any or all of the morbid results of perturbed nervous influence. It opens up a new field to the medical jurist, for the profoundest mental depression, urging the victim to perpetrate the most atrocious crimes, may result. Strabismus, and other ophthalmic troubles, makes it of extreme interest to the ophthalmic surgeon; while to the orthopedic and general practitioner of surgery, we have daily evidence of its importance. For a clear insight into this new, comparatively unexplored and rich field, I must refer you to the writings of Otis on reflex irritation from stricture; to those of Sayre on phymosis, and to those of Beard on reflected prostatic urethral irritation. The subject is extensive. Typical cases are so common that I do not feel called upon to do more than refer to it. The expression, neurasthenia or nerve-tire, is not broad enough in its scope; more properly, it should embrace nerve-inefficiency and nerve-perturbations, as well as nerve tire.

The last few years have been prolific in writings, upon the surgery of the genito-urinary organs, notably, from the pens of Thompson, Otis, Gouley and Van Buren and Keyes. Add to these the frequent reports of cases and monographs in the numerous journals, the debates in scientific associations, and it may readily be seen that the science of this branch is not at a stand-still, but advancing with a rapidity equal to any branch of the healing art.

I have not considered it necessary to occupy space with the names of publications from which much of my information was obtained, but have generally given the authors' names. My thanks are due Dr. Hugh M. Taylor for valuable assistance in the preparation of this report, and Dr. Landon B. Edwards for the loan of various periodicals.

It has become a custom for the chairman of the various committees of this Society to apologize for the length of their reports, and to plead as excuses, for whatever defects they may contain, want of leisure and facilities for familiarizing themselves with the literature of their subjects. While

no one can be more keenly alive to the defects of this report than myself, and while it has been spun out far beyond the usual length of such reports, I propose to honor this custom by deliberately breaking it. This is the result of an honest effort to comply with the duties imposed by my position, and as such I respectfully submit this report.

REPORT

ON

ADVANCES IN PRACTICE OF MEDICINE.

By BEDFORD BROWN, M. D., Alexandria, Va.

The duty of preparing a report on the subject of the advances in the practice of medicine having been assigned me, I have determined rather than present a mere cursory and superficial sketch of the numerous additions which have been made to our knowledge of this department of our science recently, which would be of little real value, to prepare a paper on the *history of fever*, combining in detail, but in succinct form, all the facts and information on this all important question, derived from the researches and experiments of the greatest living authorities on these subjects.

There was a period in the history of the world when the progress of medical science could have been measured by ages and centuries; later by generations; but now days, and even hours, often serve to bring forth great and important changes for the advancement of our profession.

This statement is not astonishing if we reflect for a moment on the vast number of able and highly educated minds engaged in the hourly investigation of the human system and in the constant observation of its various maladies. In our own country alone there are not less than sixty thousand intellects thoroughly cultivated, employed in the never-ceasing study of the collateral sciences of medicine. Hence the production yielded by this vast amount of mental labor annually must afford a field far too great for discussion in a brief report.

Fever, which has from all time claimed the earnest attention of our profession, remains still a question of paramount importance.

The practical physician and pathologist now, as in the days of Hippocrates and Galen, are equally concerned in a clear understanding of its

etiology and influence on human health. There is not a day of our professional lives that is not largely expended in its observation; in battling with its ravages; and but too often in witnessing its destructive effects. While this subject has enlisted the most earnest attention of the profession for thousands of years, there never has been a period in our history in which the minds of medical men have been more closely engaged in its scientific observation and study than during the past few years. So vast are the importance and the varied connections of fever with disease that scarcely any malady hurtful to life is devoid of it. If it were possible to divest disease of this single phenomenon, we could, in a great majority of cases, become masters of the situation and promptly control morbid action.

More than fifteen centuries ago Galen, one of the greatest intellects which ever existed in any age, pronounced fever to be nothing more nor less than a preternatural degree of corporeal heat. Recent observations and experiments, conducted with the utmost care and scientific accuracy by the most learned pathologists of our time, have confirmed very nearly what old Galen said in the far distant past. We may have all the accompanying phenomena of fever, as increased frequency of pulse, nervous excitement, delirium, suppression of secretion, and restlessness, without this condition; but a rise of temperature of the body of only a single degree for any length of time denotes the presence of fever.

The question now arises whether the knowledge derived from the scientific research of fifteen hundred years has really advanced our ideas of the pathology of fever beyond the problem of Galen. I think in reviewing the labors of the great men who have assiduously devoted their time to the study of this subject, we will see that the fact has been confirmed that we have made vast additions to our knowledge of the etiology, the mechanism, the effects, and finally, of the means of correcting fever.

Etiology of Fever.—Heretofore authors have divided the subject of fever into two great leading classes as indicative of origin. One, the idiopathic variety, supposed to originate entirely from general causes; the other variety, the symptomatic, being attributable only to local inflammatory action. For years, probably, the so-called symptomatic fever of local inflammation was thought to be due to the sympathetic action of the nervous system from irritation induced by the local affection.

Of course these views, however honored by long and established usage, are very indefinite and obscure. Irritation, whether we mean excitement either febrile or nervous, is a term which is far from being explicit. The weight of authority now preponderates decidedly in favor of the opinion that the symptomatic fever, arising from local inflammatory action, is as much due to the introduction within the circulation of septic material as may be the case in fever caused by the absorption of infectious poison of

wounds. If this be true, it becomes a fact that all forms of symptomatic fever, whether simple or malignant, are true examples of septicæmia, only differing in the type of their malignancy. During the progress of phthisis, pneumonitis, erysipelas, peritonitis, diphtheritis, and so on to the end of the list of local inflammations, there must of necessity be a constant absorption by the circulation of the debris of disorganized blood constituents, as the white and red corpuscles, fibrin and albumen, and also the broken down tissues, the result of destructive local inflammatory action, which, acting as septic agents, set up fermentative, and in malignant cases, putrefactive action in the circulating fluids. Just as in fruit when ripening on the tree a minute centre of fermentative action appears, and as it infects contiguous atoms radiates in all directions, ultimately extending through the entire living mass, causes universal putrefaction and then follows decay. These processes are all accompanied with the evolution of heat. This is as true of vegetable septicæmia as of animal. It may originate from an injury, from frost, dampness or the infection of an insect, and in many respects is not unlike that in the animal body. In our study of septicæmia in the human system we may learn a valuable lesson from that in the vegetable organism.

The inflammatory process in the human system means the disintegration of a certain amount of inflamed tissue and the destruction and death of a certain amount of blood materials, as the red and white corpuscles, fibrin and albumen, which, if not liberated by what is called the suppurative process, are retained, absorbed and circulated throughout the system, inducing fermentation, and often putrefactive action, and what is known as blood-poisoning with an increased evolution of heat. The marked relief afforded to inflammatory fevers by the collection and free evacuation of common pus, is due to the fact that the broken down tissues and blood materials in place of being absorbed into the system are promptly expelled. Thus it is that there can scarcely be an inflammation, however insignificant, without causing some degree of blood sepsis. By fermentative action blood is rendered partially unfit for nutrition, while by putrefactive action it is rendered entirely unfit for that purpose. Experiment proves that it only requires an infinitesimal quantity of dead animal matter in the circulation to induce blood-poisoning and fever when introduced artificially. When we reflect for a moment how much of dead animal matter is introduced into the system during the progress of every attack of inflammation with its blood-poisoning and fever and the efforts of nature to produce elimination, we need not be astonished at the universal disturbance and prostration which often result from the slightest local inflammation. In health the blood must be absolutely free of all septic matter. Hence there cannot enter into the circulation the most minute quantity of septic material without inducing septicæmia and fever.

In phthisis pulmonalis, we have a most interesting example of protracted or chronic septicæmic fever, in which it may be that for years there is a daily introduction of septic matter into the system from the diseased lung, sustaining the febrile action as long as the septic poison continues to be furnished.

After reviewing the numerous varieties of inflammatory affection, with their varied types, and the many forms of blood-poisoning, as the infectious, contagious, malarial, miasmatic, all of which give rise to fever, impairment of the process of nutrition, and which tend to destroy the vital and nutritive properties of the blood, it is not difficult to perceive that all forms of fever are but the results of the introduction into the circulating mass of a septic poison, either impalpable as that derived from malaria, or infection, or palpable as that furnished the system from the destructive effects of local inflammation. We have the strongest evidence for the belief that all fevers are really the results at last of blood-poisoning, either from local causes or those of a general character. We are thus enabled to form an adequate conception of the vast number and variety of type and form of the numerous kinds of blood-poisoning to which the human system is liable—some very simple in character, easily eliminated; others very malignant and destructive.

Action of a High Degree of External Heat on the Human Body.—Prof. H. C. Wood, in his great work on fever, says: "That high temperature is capable of causing most fatal nutritive disturbance of almost every tissue, is therefore shown not only by experiment upon the lower animals, but also by the natural (if the expression be allowable) experiment of sun-stroke." He in this connection furthermore says: "External heat applied to the body of the normal animal so as to elevate the temperature, produces derangement of the functions of innervation, or circulation, of nutrition, and secretion similar to those seen in natural fever." These conclusions, reached not only by Prof. Wood but others of the highest authority, after the most careful experimentation, appear to settle a most important point in the pathological history of fever, viz: that all of its essential morbid phenomena may be caused by a rise of a few degrees of temperature, either from internal or external sources.

In illustration of these views, Dr. Wood cites two interesting cases of hyper-pyrexia, one from sun-stroke, the other from acute rheumatism—the temperature in each case reaching about 108°. In both cases the application of a bath at 60° reduced the bodily temperature to 98½°, relieved the cerebral oppression, reduced the pulse rate to the normal standard, and restored the secretions. Now here was a case of hyper-pyrexia from external or solar heat, and another case of equally high temperature from internal heat caused by acute disease, relieved with equal promptness by a simple withdrawal of the excess of bodily heat.

These interesting and important facts not only place us far in advance of the views held in former times, but teach us the valuable lesson that by using the simple and abundant means given us for refrigerating the body when at an abnormally high temperature, we are really inducing a potent curative effect.

Wood, in commenting further on these two cases, says again: "It would appear to follow as a corollary to these propositions that bodily temperature of excessive degree is the essential symptom of fever." Thus we observe the idea of excessive heat being the essential symptom of fever running throughout its entire history from the time of Galen, who first gave us a really intelligent account of it, to the present day. But in this there is a vast difference between then and now. We know now that either solar or artificial heat, when applied to the body in excess, will produce every single characteristic of fever, just as we see follow increased bodily temperature, whether in idiopathic or symptomatic fever.

Liebermeister, of Germany, after a most elaborate system of experiments by subjecting small animals to a continuous artificial temperature of 104° during a period of from four to six weeks, found the tissues of these animals to have undergone fatty degeneration and softening, and the blood in a state of fluidity similar in every respect to the morbid changes seen after typhoid fever, not excepting ulceration of the bowels.

Further on in the progress of his experiments Prof. Wood propounds the following questions: "What is the mechanism by which the production and dissipation of animal heat is regulated in the system?"

Secondly, "Is the rise of temperature in fever due to the excessive retention, or the abnormal production of heat, or to both conjointly?"

These two questions have long and arduously engaged the attention of scientific men, but have never been clearly settled until recently by the united labors of Bonnyman of Scotland, Sanderson of England, Liebermeister of Germany, and Wood of America.

The normal temperature of the human body stands at about 98° under all circumstances not calculated to impair seriously or to destroy vitality. We know that animal heat is the chemical result of oxidation of the solids and fluids of the organism.

But the amount of oxygen taken in is constantly liable to variation. The amount of oxidizable material also received into the system varies every day of our lives. When the variations in the amount of the two great factors necessary to produce animal heat are so frequent in occurrence, there must be some inherent power to regulate the production and dissipation of heat in the body beyond the mere chemical act of oxidation. Otherwise, any slight deviation either in the production or dissipation of heat at any time would amount to fever.

The vast amount of information relative to this subject acquired by scientific men in their researches and experiments, all goes to prove that the power to control and regulate the production and dissipation of heat resides in the nervous system, and especially in that great division termed the sympathetic.

Sir Benj. Brodie long since found that when the cervical portion of the spinal cord was divided the body was liable to extreme variations in the retention and dissipation of heat. Modern investigators, as Wood, Perinaud, Sanderson and Leyden, have come to the conclusion that wounds of the medulla oblongata so situated as to paralyze the vaso-motor centers, cause decreased heat production with usually primarily increased heat dissipation.

Most of the modern pathologists who have given much attention to this subject have reached the conclusion that the origin of the sympathetic and vaso-motor system of nerves at the base of the brain, constitutes what they term an "inhibitory center," which acts as a controlling power over the heat-generating functions, regulating and repressing its undue production, maintaining the normal heat standard not only by this means, but also regulating the important act of heat dissipation. This constitutes a power not only to regulate chemical action in the system for the generation of heat, but also to increase or diminish heat radiation by acting on the circulation of the blood through the vaso-motor system.

The vaso-motor system of nerves possesses the power of regulating the supply of blood either to the entire body or to any organ or part, by causing either contraction or dilatation of the blood vessels and in this way regulating the dissipation of heat. Spasm of the vaso-motor nerves invariably causes vascular contraction and retention of heat. This state of affairs is observed in fever. On the contrary, paresis, or partial paralysis of these nerves, induces vascular dilatation and a rapid loss of heat, and usually copious perspiration. This is the condition seen in Asiatic cholera.

The peculiar mechanism by which the vaso-motor and sympathetic centers act in diminishing or increasing the amount of heat in fever is, of course, through their influence on the arteries and capillaries. It is by this spasmodic action on the arteries that we have tension of pulse and that peculiar firmness and hardness of the artery which we observe in high grades of inflammatory fever. On the contrary, paresis of these nerves produces that soft, relaxed, feeble pulse which is seen in states of great relaxation and prostration attended with loss of heat. Thus it is that a general spasmodic state of the vaso-motor nerves induces universal contraction of the cutaneous arterioles, and, of course, suspension of heat dissipation, heat retention, and increased pyrexia. On the other hand, as before stated, universal paralysis or depression of these nerves induces general relaxation

of the vascular system and rapid heat dissipation, as in cholera and malignant diphtheria. In the algid type of diphtheria we have absolute vaso-motor paresis and a rapid heat loss, which is dangerous to life.

In high grades of fever also there is manifestly spasmodic excitement of the vaso-motor and sympathetic systems and tense contraction of the external and internal capillaries, as is denoted in the partial suspension of the secretions.

Such is this contractive force in the arterioles, though the cardiac power may be redoubled in each pulsation, the flood gates of the skin, the liver, kidneys and intestines are closed tightly, and amidst the raging heat of fever scarcely a drop of water may be exhaled until vaso-motor spasm is allayed and vascular relaxation is induced, when universal heat dissipation and secretory action are restored. For the relaxation of vaso-motor spasm and the promotion of rapid heat dissipation, with vascular dilatation in pyrexia, the action of aconite and veratrum viride is remarkable. Their power appears to be expended upon the entire ganglionic system, producing a partial paresis of that system of varying degree from the slightest sedative and soothing influence over the cardiac, cœliac and renal ganglia, allaying undue cardiac action and inducing gentle relaxation of the arterioles and arteries, with moderate exhalation of moisture and reduction of fever, up to a profound paralysis of the ganglia, enormous vascular dilatation, rapid heat dissipation, copious perspiration, and that death-like coldness of the surface which follows its poisonous action.

Vaso-motor spasm from purely nervous influence, by causing sudden and extreme contraction of the capillaries and retention of heat, may also cause a very high grade of hyperpyrexia for a time.

Drs. Little, of Ireland, and Phillipson, of England, cite two well authenticated cases in which the temperature in two cases of hysteria went up to 125° without danger to life on a number of occasions, lasting twenty-four or forty-eight hours. These remarkable examples of high temperature are never met with in septicæmic fever, but only in nervous affections in which there is spasm of the sympathetic nerves, as seen in hysterical affections, and are said never to be fatal. I have myself seen in a number of cases of hysterical affection in which there was spasmodic action of the vaso-motor nerves and rigid contraction of the cutaneous arterioles, with sudden suspension of heat dissipation, the temperature rise to 115°, which was speedily relieved by the action of valerian.

These are good examples of vaso-motor action and influence in the retention and dissipation of heat.

On the contrary, in that form of hysteria attended with paralysis temporarily of the sympathetic, we see extreme vascular dilatation and excessive heat radiation and loss, until the surface assumes a death-like cold-

ness. While all are satisfied that heat is produced during the process of oxidation in the formation of carbonic acid, water and urea in the system, the vast majority of the leading pathologists believe that in a state of health that beautiful, perfect and admirable equilibrium between the heat-producing and heat dissipating powers, which gives us just sufficient warmth to afford strength and vigor and protect our bodies from the varying changes of the surrounding atmosphere, is alone under the control of the great sympathetic and vaso-motor nerves.

Is the Rise of Temperature in Fever Due to an Actual Increase in the Production of Heat in the Human Body or an Increased Retention?—This is a problem which has been discussed for ages without any satisfactory conclusion until recently. In the past few years, and very recently, Senator, Liebermeister and Leyden, of Germany; Burdon Sanderson and Bonnyman, of Great Britain; Perinaud, of France; and H. C. Wood, of our own country, have devoted much time and care to the investigation of this question. After the most patient and accurate study and investigation with carefully conducted experiments, they have, I believe, without exception, arrived at the conclusion that a healthy person on full diet produces a greater amount of heat in a given time than one with fever on such diet as fever patients are allowed.

In other words, an individual in vigorous health, subsisting on bread, roast beef, beefsteak, mutton, rich milk, potatoes, tomatoes and other vegetables and fruits, produces more heat daily than a patient in typhoid fever with a pulse of 120 and a temperature at 107° on fever diet.

This proposition explains itself when we reflect on the fact that the established principle of heat production in the organism depends more on the amount and presence of the hydro-carbons in the circulation than on any other agents.

The quantity of these materials taken into the system during fever is always diminished. If these statements are true, it explains why it is that a rich and generous diet in fever is only adding fuel to the fire in the increased production of heat. The next question of interest which addresses itself to us is this: "Why, if the healthy system on full diet produces more heat than the fever patient, the temperature of the former remains invariably at about 98°, while that of the invalid rises often to 107° during fever? In the case of the healthy subject the apparatus for the repression of inordinate heat production and heat dissipation is in perfect order, permitting the constant but equable escape of heat from the body as rapidly as formed, while in the case of the fever patient, the same apparatus, the ganglionic and vaso-motor systems, are in a state of complete derangement, not only failing to repress undue heat production, but by spasmodic action on the circulatory system; causing extreme vascular contraction,

heat retention and diminution of radiation, which constitute what is denominated fever.

Rhythm of Temperature.—The subject of those diurnal changes in the temperature of fever termed remissions and exacerbations is one which has given rise to much inquiry and speculation. We may visit a patient in the morning and find his temperature nearly normal, while at our evening visit his temperature may be five or six degrees higher.

Whether this diurnal change is based on physiological law or due to morbid action alone is a question of interest. Burdon Sanderson and Liebermeister, among others, after the most careful observation, find that there is a daily or morning and evening variation in the temperature of the healthy individual. This is true of every individual. This they term the "rhythm of temperature." They have ascertained, heretofore, that the rhythm of temperature in disease is about proportionate to that in health, and reach the conclusion that the remissions and exacerbations of fever are acts simply in obedience to physiological law. When there fails to be a daily remission in fever, it indicates that the physiological laws of heat dissipation are absolutely suspended, and life is therefore endangered by hyper-pyrexia.

Other authorities believe that the daily rhythm of fever is due to the alternate contraction and dilatation of the entire capillary system, caused by the regular spasmodic action of the vaso-motor nerves followed by relaxation; the first act causing retention of heat and suspension of secretion, while the second permits free perspiration and rapid heat dissipation.

The view has been put forth recently that the "inhibitory centers" of the vaso-motor system give rise to two distinct sets of nerves—one with the special function of producing capillary contraction, suppression of secretion and heat retention; the other having the power alone of causing capillary dilatation, heat radiation and loss. These two sets of nerves are supposed to act alternately in regular rhythm, as is the case in the alternate contraction and dilatation of the heart and arteries, and also of the arterioles in the acts of blushing and erection.

In the algid stages of febrile affections the working of this peculiar mechanism is illustrated. In the initiatory chill of fever, the cutaneous capillaries, under the spasmodic action of the sympathetic, become rigidly contracted, all ingress of arterial blood for the time is shut out, while the capillary veins, still retaining their decarbonized blood, give that blue and livid color of the skin usually seen in this condition.

But the vaso-motor spasm and contraction of the cutaneous capillaries soon induce retention of heat by suspending suddenly its dissipation from the surface. Then we have all the usual phenomena of febrile reaction. There is a ganglionic nervous center for every function of the human

body—the sight, smell, taste, hearing, the action of the heart and blood vessels, digestion, intestines, renal, generative, respiratory acts; and lastly, ganglia regulating heat production and dissipation.

The Rational Treatment of Fever.—Antipyretic remedies belong chiefly to these leading classes. The direct refrigerants as cold, the arterial and capillary sedatives, produce their effect on fever by direct action on the sympathetic ganglia, allaying vaso-motor spasm, inducing arterial and capillary relaxation and dilatation, copious perspiration and rapid heat dissipation. This class is represented by aconite and veratrum.

But the most certain and permanent class of antipyretics are those which possess the most active, antiseptic, disinfectant, and anti-fermentative powers This class is represented by the preparations of cinchona, quinine being the principal, the sulphites, sulphurous acid, the salicylates, corbolates, nitrates and chlorides. All of these classes are applicable to every variety of fever. This would seem to confirm the views expressed in this paper, that in all fever there is more or less septic poisoning and that there is increased heat retention and suspension of heat dissipation by derangement of vaso-motor action.

In the process of fever, whether from infection, contagion, miasm or malaria, there is a reasonable ground for the belief that there is a primary and secondary source of blood poisoning. The action of the original cause, either malarial or infectious, is most certainly to destroy the vitality of a certain proportion of blood constituents. These dead blood constituents in the form of leucocytes, red corpuscles, fibrin and albumen, in place of becoming mere innocent, effete matters to be eliminated, assume the form in turn of active poisons, inducing fermentative and possibly putrefactive action, and thereby infecting the remaining healthy blood materials.

In the process of inflammatory fever the original source of blood poisoning is found in the dead blood constituents and disintegrated tissues, resulting from the destructive action of inflammation. These dead materials while floating in the circulation, must of necessity destroy the vitality of a certain proportion of healthy blood elements, which become also secondary sources of blood poisoning. In what manner these dead and poisonous materials are finally eliminated and ejected through the secretory organs, as the skin, lungs, kidneys, liver and intestinal canal from the system, is a question of infinite interest and importance. The series of processes, both chemical and vital, by which this act is accomplished, must be both complex and difficult, inasmuch as the laws and functions of health are called upon to correct and rectify morbid action. These complex operations in the system engaged in the action of poisonous materials, their secondary effect and the final efforts of elimination, constitute with the evolution of heat or its increased retention, the process of fever. To neutralize the ac-

tion of poison, to eliminate dead and effete materials from the system, and supply materials to make new blood to take the place of the old and worthless stock, constitute the great principles of treating fever. By the introduction of antiseptics into the system we bring directly to bear chemical agents on the dead and poisonous matters in the circulation, which render them neutral and innocuous, which prevent fermentative and putrefactive action, and prepare them for easy elimination, just as if the same agents, as quinine, salicylic and carbolic acid and sulphur were thrown into a vat of malt, all fermentative action would speedily cease.

VOLUNTEER PAPER.

CATARRHAL DEAFNESS.

By JOSEPH A. WHITE, M. D.,

Surgeon-in-Charge of the Richmond Eye, Ear and Throat Infirmary.

I would, with your permission, like to call your attention to a frequent form of progressive deafness familiar to you all, but, at the same time, so frequently overlooked or neglected until too late to restore the hearing. You can all recall patients who have complained time and again of slight noise in the head likened by each one to some different sound, combined with a sense of fullness about one or both ears, and with more or less impairment of hearing.

These phenomena are often associated with decided cold in the head, and with its disappearance they vanish also, to reappear at the next manifestation of cold; after several visits to the same individual, each time making a more lengthy stay, they, in course of time, take up their permanent abode daily, weekly, or monthly, becoming more or less troublesome companions; or these phenomena may appear occasionally without any very marked signs of cold, and follow the same course, as above—or, when once observed, without cessation or intermission, go on, gradually increasing, until they compel the patient to seek advice.

This class of cases frequently say they are not subject to cold in the head, that they have nothing the matter with the throat, but that probably something is wrong about the wax secretion, the drum is out of order, etc. Frequently such patients have consulted physicians who have ordered sweet oil, glycerin, astringent solutions, etc., etc., to be dropped into the ear, blisters or leeches to be applied behind the ear, or stimulating liniments around it. I have, in my case-book, a number of these empirical

modes of treating such cases, most of which are perfectly useless, and some harmful. Dropping oil into the ears, for instance, is frequently productive of much harm in being the cause of fungoid vegetable growths or aspergillus. After trying various methods of treatment, they become discouraged, and have recourse to some one giving special attention to aural surgery—the worst cases, who have waited longest, to be sent away as hopeless; the best, may be, to undergo a prolonged treatment, when an early application to a specialist would have saved them much time, money, and their sense of hearing.

Taking such cases as a class, under the head of subacute or chronic non-suppurative aural catarrh, I may safely say that a very large majority of them have the aural symptoms solely as a result of throat and post-nasal troubles in one form or another, and I may also safely add that the inception of the ear symptoms, such as tinnitus, fullness, slight defect of hearing, etc., or of any one of them, is almost proof positive that the throat or post-nasal cavity requires suitable treatment, according to the nature of the trouble. With few exceptions, these cases can all be permanently cured in the earlier stages, before radical pathological changes have occurred in the drum, cavity, or drum-head. After such changes as, *e. g.*, great thickening of the drum-head, stiffness of the articulation of the ossicles, etc., occur, I do not believe a cure is possible in our present stage of knowledge. The treatment, then, is more alleviative than curative, and in advanced cases our only aim is to prevent further progress of the disease, in order to keep what hearing the patient has; but in the earlier stages, cases with great loss of hearing are frequently completely cured.

The treatment is mainly directed to keeping the Eustachian tube open and attacking the throat or post nasal trouble. The importance of a very thorough and minute knowledge of throat and post-nasal disease is, I believe, hardly appreciated even by some giving special attention to aural diseases, and hence the occasional unfavorable results in cases that ought to be relieved or benefited. The difficulty of treating disease in a drum cavity protected by an intact and thickened drum-head is apparent to all. Applications to the cavity through the Eustachian tube are difficult to make, and their effects cannot be observed. Fluid injections in such cases are almost entirely discarded, and such as are used are only mild, soothing applications, and handled very cautiously. Vapors, either from hot water, medicated to suit each individual case, or from volatile agents, are our only reliance for local application, and are forced through the Eustachian tube by Valsalva's or Politzer's method. Outside of this, the treatment resolves itself into the applications to the throat and nasal cavities.

In order, then, to treat such cases, a thorough knowledge of these parts, with their diseases, and a perfect familiarity with the use of the rhinoscope

and manipulation of the necessary instruments is absolutely essential in my opinion; otherwise we cannot give our patient the advantages—we cannot treat him as comprehensibly as he has a right to expect when applying to a specialist. Some aurists overlook this fact. In this country the eye and ear are the branches generally associated together in specialism. Some few, like myself, give attention to eye, ear and throat diseases. Practically, the eye is a distinct study from the ear, whilst the ear and throat cannot really be separated, being intimately connected and dependent upon one another. A throat specialist should have a thorough knowledge of ear diseases, but it is much more important that an aurist should be intimately familiar with throat troubles, more especially as the treatment of the ear disease so frequently resolves itself into the treatment of the throat and posterior nares. A routine examination of the anterior and posterior nares by the speculum and rhinoscopic mirror should always be made in such cases.

The commonest cause of subacute and chronic aural non-suppurative catarrh is, probably, follicular or granular disease of the naso-pharynx. This presents a variety of phases, from simple enlargement of the mucous follicles with congested mucous membrane, to great thickening of the mucosa and submucosa, sometimes complicated with swollen tonsils, elongated uvula, adenoid growths, hypertrophy of the pharyngeal tonsils, or of the tissues over the turbinated bones. The natural result of such a condition would be its passing along the lining of the Eustachian tube, causing more or less ear trouble, or producing the same effect by simple swelling about the pharyngeal orifice of the tube. The changes on the pharyngeal wall and the condition of the tonsils and uvula are easily seen by a simple inspection, but the pharyngeal tonsil, mouth of Eustachian tubes and posterior turbinated surfaces can be observed only by the rhinoscope—hence its importance to a diagnosis, as well as treatment.

The ear symptoms oftenest depened upon the length of time they have lasted, although this is by no means an invariable rule. The deafness, tinnitus, inability to inflate the tympanum, and appearances of the drum-head are our chief symptoms. Deafness is the symptom oftenest complained of, although tinnitus, when loud and continuous, is the most distressing. The drum-head, in most cases, has lost its lustre, becomes opaque, and is considerably depressed; but in young subjects, even where great deafness has existed some years, we frequently find the drum-head normal in color, brightness and translucency, though depressed from absence or rarification of the air in the tympanum. These are the most favorable cases, and a patient, persistent, and appropriate treatment of the naso-pharyngeal disease will restore the hearing.

When the tonsils are hypertrophied, they should be removed before any other treatment is instituted. Hypertrophies of the tissues over the turbi-

nated bones, either anterior or posterior, should be removed by operation, or by application of London paste or glacial acetic acid. I have had favorable results from both methods. In operating I use Jarvis' snare or cutting forceps. Adenoid tissue at roof of pharynx can be removed by Cohen's forceps, or by caustic applications. For general granular thickening of the mucous membrane, applications of nitrate of silver, chloride of zinc, or iodine in solution, alternated with powders of iodoform, tannin, etc., are the best—individual granulations being destroyed by London paste. Prior to the local applications, the anterior and posterior nares should be thoroughly cleansed by a cleansing and antiseptic spray. The use of Politzer's method of inflating the drum cavity with vapor or air medicated by iodine, tincture of benzoin, hydrobromic ether, etc., according to the case, should be kept up. Internal treatment is also important; tonics when required; regulation of the secretory organs. Cubebs I have always found a useful remedy when secretion from the posterior nares is annoying.

Each case will require more or less different treatment, according to the naso-pharyngeal changes, and in all it will be tedious and long-continued or interrupted for short whiles, only to be renewed. It is only in this way that a favorable result can be expected. The annoying tinnitus is sometimes relieved by chloride of ammonium in twenty grain doses three times daily; in others, pulsating or throbbing tinnitus, hydrobromic acid (Squibb's) in ten drop doses five times a day, continued for two or three months.

Time and space forbid a discussion of the various forms of tinnitus aurium and their supposed causes, my object in this short paper being to call attention to the importance of early attention to the naso-pharynx in commencing middle ear disease.

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VOLUNTEER PAPER.

ON THE EMETIC EFFECT OF CHLOROFORM ADMINISTERED BY DEGLUTITION, AND THE ADVANTAGES OF HYDRO-BROMATE OF QUININE HYPODERMICALLY.

By G. Wm. SEMPLE, M. D., Hampton, Va.

Mr. President,—I desire to call the attention of the Society to a peculiar action of chloroform, when administered by deglutition in a large dose, to a patient whose stomach is full of ingesta, which I do not remember to have heretofore seen adverted to, but which I have uniformly, in a large experience, seen to occur. According to my experience, administered under such circumstances, it produces easy and copious emesis, perfectly emptying the stomach, upon which the emesis and nausea cease entirely. When I know that the stomach continues to contain undigested ingesta, both in cholera morbus and colic, and in cases of intermittent fever among children, either during convulsions, or when they are seriously threatened, I always give it in large doses, with the uniform result of easy emesis in from twelve to twenty minutes. In the former cases, it gives permanency to the relief from pain first secured by a full hypodermic injection of sulphate of morphia over the epigastrium, and in the latter cases it very promptly relieves the convulsions, calms the nervous symptoms, and greatly shortens the duration of the paroxysm.

August 27th. I was called to M. C., a colored girl 17 years old, usually healthy, who had had a healthy menstrual flow the week before, that had ceased four days before, since which she had been quite unwell, without appetite and suffering pain and numbness in her left arm. That morning she fancied, after having eaten nothing for two days, some cantaloupe—her evil appetite, like "*Mala fama crescat eundo*," and she ate at first slowly a slice, and then another with more appetite, and as the appetite increased, ate faster and faster, until she had eaten the whole of a very large and

fine melon. In a very short time she was taken with violent cholic pains. At 2 P. M. I found her with cramping pains in the abdomen and in the intercostal muscles. The slightest expansion and contraction of the chest caused violent cramp pains in them, and rendered abdominal respiration necessary. She had also violent clonic contractions of the upper and lower extremities, and was occasionally for a short time unconscious. I gave one-fourth grain of sulphate of morphia over the epigastrium, and repeated in twenty minutes. I then prepared two drachms of chloroform in mucilage of quillaya, by which time she was much relieved. In five minutes she was perfectly easy, and in eight minutes asleep. In twelve, she awoke vomiting, emptied her stomach entirely, and in the course of ten minutes fell asleep again and slept until 9 P. M., when she was waked for a full dose of calomel and oil. Again she went to sleep and slept until 4 A. M., when she awoke for the operation of the calomel and oil, which gave her three or four full bilious actions, and after three grains of quinine three times a day for three days, she went to her work as maid-servant quite well.

The same evening a child, two years old, who had eaten a quantity of damsons, had a slight chill and fever, and had a violent convulsion, which lasted about an hour. The mother, in alarm, sent for me; but not finding me, sent for any doctor that could be got. Not finding one, she bethought her of the directions I had given in case of any of her children being taken with a convulsion, having a full stomach, to give a teaspoonful of chloroform by deglutition, and she gave it to the child. In a few moments the convulsion ceased and the child became calm. Two doctors then arrived, who could not conceal their apprehension of the effect of so large a dose, though out of respect for her feelings and for me, they said nothing, but advised a dose of ipecac. Before it was swallowed the child began to vomit, emptying its stomach of a large quantity of undigested damsons. It then fell asleep and slept off its fever in the course of two hours. A purgative, followed by quinine, completed the cure. The character of the vomiting differed from that produced by ipecac. It emptied the stomach at a few easy efforts, and was not followed by nausea or any repetition of effort to vomit.

On prizing open the mouth of a child in convulsions, with clenched teeth, and inserting a spoon well back on the tongue, the weight and pungency of the chloroform causes it to be more easily and certainly swallowed than any other medicine would be under the circumstances. I have no fear of the result of a large dose. It quickly quiets convulsions by the powerful impression of a large quantity on the nervous system by reflex action from its local action on the stomach, and before any considerable quantity is absorbed, the remainder is expelled by vomiting. So very prompt and certain is its emetic action on a full stomach, that it occurs to me as the

safest and most certain means of securing emesis in cases of poisoning by poisoned food.

Some years ago I called attention to chloroform as an anthelmintic. ℞. Chloroform, ʒj; castor oil, ℥j; croton oil, gttj. Mix. Given in the dose of from ʒss to ℥ss, this mixture is, according to my continued experience, the most certain anthelmintic I have ever used. ℞. Chloroform, ℥j; linseed oil, one pint; M. This forms the very best mixture for a horse.

I was lately called to attend a negro man who had continued diarrhœa, following cholera morbus, and complained of constant griping pain of extreme severity about the umbilicus, which I had much difficulty in controlling. One night, desiring to secure him sleep, I gave him one drachm of compound elixir of chloroform made by Dr. Pepper's formula. The next morning he passed thirty-two large lumbricoides, and was relieved of the pain and diarrhœa. Three nights after he was again taken with the griping, and having a dose of the medicine on hand, took it. The next morning he passed eight or ten worms and has since been quite well.

I wish to state that a continued experience of the effects of a solution of the *hydro-bromate of quinine* increases my confidence in the remedy for hypodermic injection. Its action is very much more prompt and powerful than that of the sulphate administered in the usual modes. Twenty minims of the solution, containing grs. iv of the salt, administered by hypodermic injection two hours before the expected accession of a chill, is much more certain to prevent the paroxysm than twenty grains of the sulphate administered in the course of eight preceding hours. It does not produce cinchonism or any of the other unpleasant effects so often the result of the sulphate. Those subject to urticaria from the sulphate can take it with impunity.

I do not agree with Dr. Claiborne that any course of mercurial medicines will prevent this effect of the sulphate. I have often seen this effect produced to an exaggerated extent after a full course of such preparation. In my opinion it renders the patient liable to it to a much greater extent. I am fully satisfied that the liability to it is a constitutional idiosyncrasy. I have seen it constantly result in a most alarming degree in the cases of a father and his three children, whenever taken. Five grains produced in the father urticaria over the whole surface of the body, turgescence of the bronchial membrane, causing great difficulty of breathing, and also pain in the heart extending to the left arm, and reduced the pulse to twenty a minute. These patients do not suffer from the hydro-bromate. Occasionally the injection produces a certain degree of numbness in the member injected, which continues only a few days, and not unfrequently some hardness and soreness in the cellular membrane, but this passes off without the formation of abscess.

VOLUNTEER PAPER.

CASE OF ABSCESS OF THE LIVER.

By J. A. ALEXANDER, M. D., Broadway, Va.

During the year 1880, I was repeatedly called on, in person or by letter, by Mr. Crawford Zirkle, a farmer living a few miles from this place, for "liver medicine." On the 1st day of October I examined him for the first time. He had constant head pain, said he had had headache for a year or more. He had pain and tenderness about the stomach, and a slight yellow tinge of the conjunctiva. Urine scanty and high colored. I gave him an active mercurial purgative, which was followed by a full dose of castor oil. For his stomach trouble, I gave him two-grain doses sub-nitrate of bismuth, and promised to see him in a day or two and examine him thoroughly.

On the night of October 2nd I was sent for in haste to see Mr. Zirkle. I found him much worse. There were great depression of spirits, irregular action of the heart, violent gastralgia. Insomnia was a marked symptom; vertigo was almost continuous. Dyspepsia was also present to an excessive degree. There was also alternate constipation and diarrhœa. My diagnosis was cerebral hyperæmia, as a result of hepatic abscess, and so expressed myself before leaving his house the next morning. From this time his head symptoms became more prominent. He could not sleep nor eat. He was apprehensive of paralysis, insanity, or impending death.

On October 10th, one of his friends took another physician to see him, who told him that his trouble was insanity, and advised him to go to the Western (Staunton, Va.) Lunatic Asylum for treatment.

I now told Mr. Zirkle that he had abscess of the liver, and that an operation would relieve him entirely.

October 12th. At my request, a physician of experience was called in counsel, who, knowing an aunt and a sister of Mr. Zirkle to be patients in a lunatic asylum, feared a like result in his case.

October 16th. Had a consultation with another physician with like

result. I remained with my patient all night, and proposed to operate on him by aspiration, but he being very nervous and timid, and three other physicians being against me, he expressed doubt and fear.

As I was to start to Danville on the 18th to attend the last meeting of the Medical Society of Virginia, I proposed to him to go with me as far as Richmond and consult Dr. Hunter McGuire. He put me off by urging me to ask Dr. McGuire's opinion of his case, which I did.

On my return home, I again visited my patient on October 23d, and found him still in that God-forsaken condition, and, on examination, again detected fluctuation. I neglected to state before, that I thought I could detect matter sometimes, and at other times I could not. I could now detect matter, without doubt, and told him that Dr. McGuire advised me to go home and plunge the aspirating needle into the abscess and save his life, but if he would not agree to that, to bring him to Richmond and he would do the best he could for him. He would not agree to either of my propositions; consequently I declined to visit him again unless he made up his mind to be operated on.

Before the month closed, Mr. Zirkle called at my office and asked me to go with him to Baltimore or New York. I agreed to do so, provided he would go to see Prof. Aonold of Baltimore, or Prof. Hammond of New York. He agreed to go to Baltimore, and I wrote to Prof. Arnold on the subject; but before I could get a reply, I learned that Mr. Zirkle had gone to Baltimore. Who he consulted I never learned; I only know that he did not see Prof. Arnold.

After this time I saw no more of Mr. Zirkle until July 24th, 1881, when he again sent for me. I found him in some respects in a worse condition than I had yet seen him. The hyperæmic condition of the brain still existed. He had lost all interest in his business, was tired of life, and had twice attempted suicide. On examination, I could detect matter very distinctly. He now wanted my advice, and claimed that I had promised to go to New York with him, and agreed to act strictly on my advice if I would go.

On Tuesday, July 26th, in company with Mr. D. C. Kline, we started, and at 7 A. M. of the 27th we arrived in New York city. At 10 o'clock we consulted Prof. William A. Hammond at his residence, 43 west Fifty-fourth street, who, after a careful though hurried examination, endorsed my opinion, and after hearing a brief history of his case from Mr. Zirkle himself, Dr. Hammond told him that I had saved his life by bringing him there, and that I should operate on him, and designated 4 o'clock P. M. as the hour.

Promptly on time, Dr. Hammond called at our room at the Grand Central Hotel, bringing with him his original Dieulafoy's aspirator; and after

seeing that everything was in perfect working order, he directed me to proceed. I carefully introduced a medium-sized needle in the ninth intercostal space, at the point where fluctuation was felt, and about an inch posterior to a line let fall from the right axilla. I did not, in the first place, make a vacuum in the aspirator, but taking care to make a valvular opening, carried the needle a little forward of a perpendicular, to the median line of the body, and at a depth one and a half inches. On exhausting the aspirator, the glass cylinder filled up rapidly. Eight ounces of rich, cream-colored and odorless pus was evacuated.

Mr. Zirkle suffered but little from the operation, although no anæsthetic was administered, but he suffered for several hours after with a violent gastralgia. At 10 o'clock he fell asleep and rested well until the break of day, when he got up and dressed as usual.

At 10 o'clock, July 28th, we started for home, stopping over night in Baltimore, and arrived at home at 3 o'clock P. M. July 29th. Mr. Zirkle rode on horseback to his home, a few miles distant from the depot, and after another good night's sleep, attended church in company with his wife several miles from home on Saturday, July 30th, and met many of his friends, who were delighted to see him again with a "level head."

Just here, let me say, that I shall ever feel grateful to Prof. Hammond for the privilege he so generously offered me, and for other acts of kindness, "may he never grow less."

Since the meeting of our Society in Alexandria in October, 1879, at which time Dr. J. Marion Sims reported the case of Dr. Gaillard, I have made abscess of the liver a study, as far as was in my power, and I am convinced that the following points, established by Prof. William A. Hammond, are not only true, but are of vast importance, namely:

1st. That hepatic abscesses are probably much more common with us than is generally supposed.

2nd. That they may exist without any local symptoms or general disturbance of the system, as is commonly regarded as indicating their presence.

3rd. That they may be associated with hypochondria and other evidences of cerebral disturbance.

4th. That they should be opened at the earliest possible moment, and without waiting for adhesions to form between the liver and the abdominal walls.

5th. That the proper place for performing the operation of aspiration is in one of the intercostal spaces.

6th. That the operation by aspiration is free from danger, as evidenced by those who have operated frequently.

7th. That in all cases of hypochondria or melancholia, the region of the

liver should be carefully explored, and even if no fluctuation be detected, aspiration, being harmless, should be performed.

8th. That if pus be evacuated, a cure of the mental disorder may be expected, as well as the patient's life saved, from the probable fatal consequences of hepatic abscess.

9th. That if no abscess be found, the patient will, at least be no worse off than he was before.

CHOLERA INFANTUM.

SUBJECT FOR GENERAL DISCUSSION.

Dr. Otis F. Manson, of Richmond, said:

We are here assembled for mutual instruction; but what I am going to say is probably as well known to most of you as to myself. But I notice among those present some young members, and it is with the hope that my remarks may be profitable to them that I am induced to speak. I hope I may be pardoned if my remarks seem desultory and at times disconnected, as I had no idea of saying a word to-night; but as the subject was about to be passed by without anything being said, I deem it my duty to give my views, however rudely they may be expressed, on this topic of momentous importance to the physicians, not only of this State, but of the larger portion of our common country.

Until the year 1846, I held only the views of the nature and treatment of cholera infantum usually found in the popular works on diseases of children published in this country and England; but an event then occurred in my practice that completely changed my preconceived and adopted opinions, and led me to pursue an entirely different, and, as I believe, a greatly improved system of treatment. That occurrence, with your permission, I will proceed to relate.

In the summer and autumn of 1846, a wide-spread epidemic of malarial fever prevailed with more or less violence throughout the United States. But in the valley of the Roanoke river, a malignant type of this fever was then epidemic and had been prevailing since the early part of June. You may judge of its violence when I inform you that many of the cases were of the congestive or algid form, and even the cases which appeared simple and benign at first, soon showed a tendency to assume this or some other pernicious shape.

In the month of August I was called at night to visit the family of a young tobacco planter, about twenty-five years of age, who had recently settled on a small piece of land within one-fourth of a mile of one of the creeks tributary to the Roanoke river and only distant a half of a mile

from a large millpond, which, after every rainstorm, overflowed its banks and threw its backwater over the low-grounds to the extent of a mile or more above. I had heard during this day that the only child of this young man was dying, and its physician had left it as a hopeless case, and I must admit that I went reluctantly to the house of the dying. The young couple lived in a cabin composed of two log-houses a few feet apart, the interspace being roofed over to serve as a connection and passage-way. On entering the rustic hall, I was about to go into the left-hand room, but I was quickly called from the opposite room by the young man (who I did not know was ill), who said, "Come this way, doctor; you can do no good there, my child is dying. I sent for you to help *me*. I have the fever." This encouraged me, for since the year 1844 I had been uninterruptedly successful in the treatment of the prevailing malarial fever, and you will excuse me for saying that, young as I then was, I felt that I was its master, and here was a case I had reason to know of only a few hours' duration to grapple with.

On examination of this patient, who was a robust young man, I found that he had high fever, a quick, full, bounding pulse, with intense pain in the brain, spinal marrow and limbs, and insatiable thirst, nausea and bilious vomiting. His skin was hot and dry, and its capillaries so engorged that it appeared almost as red as that of a scarlatinous patient. I need not say more to you, as you are all familiar with the symptoms of an exacerbation of remittent fever, or of "*ardent fever*," as Hippocrates termed it. The word *agony* can alone denote its exquisite suffering. The tortures of its consuming heat and unendurable pain in the brain, spinal marrow and tributary nerves have only to be once felt in order to be forever remembered.

As a part of this history, I will relate the treatment. The mastoidal region was shaved, scarified and cups applied. A copious supply of blood —at least ten or twelve ounces—was procured by this means. Cloths wrung out of ice water were applied constantly to his head—and ice freely given to the patient to eat. The nausea and vomiting continuing, however, cups were freely applied to the epigastric region, which afforded great relief. At 10 o'clock at night I gave him twenty grains of calomel, and at midnight twenty grains of quinine, simply diffused in a wineglassful of cold water. The medicines were retained, and the young father fell asleep under the sedative and narcotic influence of quinine.

But the silence of the star-lit summer night was broken by the cries of the young mother, as she bent over the cradle of her apparently dying babe, rendering sleep impossible to me. Having no other resource, I passed over the rustic passage and entered the room of the sick child. Oh! memorable night the fruit of whose watching hours has been the salvation

of many of my patients, and I trust may be of many others! The half-yearling babe was lying on its back with its eyelids open, and the eyes fixed immovably and encrusted with inspissated secretions, were so unimpressible that they or their lids did not move when the flies alighted upon them. His head was rather above the normal temperature, and his body seemed almost of natural warmth; but his limbs, from the armpits and groins downwards, were as cold as a corpse. The pulse was uncountably frequent, and so thread-like that it was difficult to perceive its pulsations at all. Added to these grave symptoms, watery stools passed from him unconsciously. I may add that the little patient had been seized three days before with all the characteristic symptoms of cholera infantum, which had continued until I found him in the condition I have described. The mother had placed a piece of linen on his tongue and let fall a few drops of water upon it at intervals, and I noticed that occasionally he swallowed the fluid when it collected in the mouth. This circumstance, and the fact that his head and body were still warm, afforded the only grounds—slight as they were—of hope. More with the desire of calming the mother than in the expectation of doing any service, I told her that there might be still some hope left for her child, and with her permission, which was gladly given, I resolved to carry out the idea that had then, for the first time, entered my brain.

I will premise that I had carefully perused before this every authority on the subject of malarial poisoning to which I could obtain access. I had been taught by my own observation, as well as their teachings, that malaria might produce a host of symptoms; and the question arose now in my mind, May not the illness of father and child here prostrate be produced by the same cause? Is it possible that two different and dissimilar diseases, endemic and epidemic in their visitations, can be present at the same time in this little household composed of only three persons? May not the disease of the child be one of the vast number of remarkable cases produced by malaria? Is there not in this child almost an exact reproduction of the comatose-algid form of pernicious fever of authors? May not cholera infantum, in a word, be only a variety of malarial fever? This and many other thoughts rushed into my mind, and my heart bounded with hope that my hypothesis might be correct. At any rate there could be nothing lost by translating the theory into practice. Death was slowly and surely approaching its victim, and *this idea* alone afforded the *only hope* of its *rescue*.

I gave then to the infant a grain of Farr's (now Powers & Weightman's) sulphate of quinine, diffused in a teaspoonful of water, which, dropped gradually on the tongue, was swallowed, and in an hour I gave it another grain of quinine. Its feet were immersed in a warm mustard bath, and

frictions with flannel used afterwards. At the end of two hours I thought I could perceive that the limbs were becoming warmer, and the quinine was repeated again at the end of the third hour. After this the warmth gradually crept along the limbs; "*the heat descended to the feet,*" to use the beautifully terse and expressive phrase of Hippocrates—written more than twenty centuries ago. The child moved its eye-lids and gradually emerged from its death-like slumber, and feebly sucked its mother's breast. Finally a gentle perspiration broke out upon the whole surface and it recognized its parent. The pulse had risen, became expanded slower and stronger.

I then visited the father and found him bathed in a copious sweat, and with but little fever. Ten more grains of quinine were given to him. At sunrise both father and child were free from pain or fever, and I pronounced them *safe*, and rapid convalescence ensued. Since then I have not lost a case of cholera infantum.

But it would be doing myself injustice, and would mislead you if you were led to believe that merely throwing into the human body more or less quinine constituted the whole necessary treatment of this or any other variety of malarial disease, and I therefore beg leave to lay before you the *plan* that I have followed in the *treatment* of cholera infantum since this memorable night. It is true that quinine may be said to be the principal, in a word, the *heroic* remedy in all forms of malarial disease, but I assure you it must be administered with skill and properly combined with other means to obtain its full salutary operation. You must divest your mind of all the teachings of those who regard it as a tonic or excitant, and look upon it as one of the most certain and potent, sedative, antiphlogistic antipyretic agents we possess, and that these effects are produced in direct proportion to the quantity employed.

Treatment.—Since the date of the case here described, I have treated cholera infantum as a variety of malarial fever and have met with such gratifying results, that I do not hesitate to say *that the general adoption of this line of conduct will greatly diminish the mortality from this disease.* But there are difficulties to encounter in the treatment of this malady not usually observed in the pernicious fever of adults. The excessive commotion of the alimentary canal usually present, offers a very great impediment to the introduction of appropriate remedies, but the difficulty, happily, is not wholly insurmountable. With the proper knowledge of the action of the main remedies, and with watchful patience, discrimination and care, we may usually conduct the case to a successful issue, provided that treatment has not been too long postponed. You should lose no opportunity of impressing upon your friends the importance of early treatment in this disease. A few hours' delay is often a fatal procrastination.

Called to a patient *early* in the course of the disease, in the *day time*, in

whom the symptoms are not very urgent, I usually prescribe calomel in minute doses. Mixed intimately with a few grains of sugar, in doses of from one-third to one-half grain, it is placed on the tongue every half hour, or hour, until the presence of bile in the alvine evacuations is clearly evident. At the same time we employ means to tranquilize the stomach. A sinapism is placed over the gastric region, and, if the extremities are *cool*, warm sinapised pediluvia are used, and frequently repeated. If the head is too *warm*, as it almost universally is, in the grave cases, cold water or ice is applied freely and assiduously. If delirium, or coma, or convulsions be present, the cold *douche* is employed. In our efforts to reduce the abnormal heat, we must, however, guard against *chilling* the infant. Cold water, as a rule, should be allowed freely as a drink. It is true that it is often soon rejected, but this is no objection to its repetition; for besides washing out the acrid gastric and hepatic secretions, usually present in the stomach, it also allays the agonizing thirst, and reduces the abnormal internal heat. Granulated ice may also be freely given. If the vomiting is very persistent, you should promptly follow the *sinapism* with a *blister* of cantharides. Lime water mixed with milk, in equal quantities, should also be frequently given in desert spoonful doses, cooled with ice. If symptoms of exhaustion from excessive vomiting and purging are present, give an enema of laudanum in gum arabic or starch water, say three or four drops in a desert spoonful of the vehicle, and repeat in an hour, if necessary. The employment of opium in the febrile diseases of children, however, demands great judgment and discrimination, of which we shall speak hereafter.

Called to see a patient *at night*, along with the means already advised, you will now make an important addition to your treatment. We usually, unless the case is very urgent, postpone the administration of the grand remedy, quinine, until the late hours of night. Then the violent excitement and commotion of the exacerbations have passed. The stomach is then not so irritable. Quinine, a *sedative and narcotic*, is assisted in its action by the *physiological tendency of the nervous system to repose in the night season*, and you have ample time to exhibit enough of it in order to prevent the threatened exacerbation of the next day. I am sure that the remedy is better borne, and produces its salutary effects in the most perfect manner, when exhibited in the late hours of night. At midnight, then, we can commence its use. To an infant of six months of age and under, we give a grain of Powers & Weightman's sulphate of quinine with a few grains of white sugar, diffused in a teaspoonful of cold water. To a child of twelve months, we give two grains of quinine, and to one of eighteen months, three grains. If the dose is immediately *rejected*, we repeat it over and over again every half hour. After a few repetitions enough will be absorbed by the mucous membrane of the mouth and stomach, or by the former alone,

if it is not even swallowed, to bring the little patient fully under its influence. If the first dose is, however, entirely *retained*, we allow the patient to rest for three or four hours. We then repeat the dose, and continue to repeat it until the thermometer in the axilla and the finger on the pulse indicate that rapid sedation is ensuing. In the large majority of cases, these effects will follow from the administration of the sulphate. The pulse will become slower and less active and bounding; the head will become cooler; and the extremities, if previously below the normal temperature, will become warmer. Not only this, but the vomiting will become less frequent, or will often *entirely cease. After the first dose of quinine has been absorbed*, the bowels will become more quiet, and the renal secretion more copious. The little sufferer will become tranquil, and fall asleep, sometimes for hours without awaking; but it can be easily aroused, if necessary. The *narcotism* produced by quinine, in this respect, is *unlike* the stupor produced by *opium;* and besides this, instead of having a tendency to produce congestion of the brain like opium, it has, *beyond all other remedies*, the power of *removing an excess* of blood from the cerebral vessels. In five or six hours after the administration of quinine has begun, in the large proportion of cases, seen early in their course, the fever will have *disappeared.* When this occurs, cease medication for the day. On the next afternoon or night, a slighter exacerbation will often make its appearance, and this may recur for two or three nights thereafter. If this is the case, repeat the quinine in similar or diminished doses, *giving it more freely in direct proportion to the violence of the fever.* At the same time, we continue the calomel, or employ blue mass, until the presence of pure, healthy bile in the dejections is perfectly evident. Now that the fever has vanished, you may associate opium in minute doses with the mercurials. If blue mass is given, have it triturated in a teaspoonful of simple syrup, and add the laudanum to it.

As long as the discharges are offensive, or as long as they are clay-colored or white or *watery*, we must continue the use of the mercurial and quinine. *The patient is not safely convalescent until the hepatic and renal secretions become normal.* Of course, *after* the *fever* has been *conquered*, we *do not need* the *sedative* impression of quinine, and therefore give it in small doses of a grain three or four times a day for four or five days. After this, we guard against relapse by resuming the use of quinine and mercurial, as soon as the hepatic secretion becomes vitiated or diminished, for as soon as this occurs, vomiting, or diarrhœa, or both, will return.

Should you be disappointed in bringing the patient fully under the salutary influence of quinine administered by the mouth, you may give it by the rectum, and should this be expelled, we have, thanks to a recent discovery, an invaluable resource in the hypodermic method. Dissolve the

dose to be given a half drachm of distilled water, by the addition of *one* drops of dilute sulphuric acid to the *grain* of the sulphate, and inject it beneath the skin of the arm, just immediately below the insertion of the deltoid muscle. Used in this way only one-half of the quantity usually given by the mouth will be necessary. If you have to repeat the dose, inject it in the other arm in the same manner. This mode of medication, however, will be rarely required, for there are objections to its use in this way—the principal one being the excitement of local inflammation, and the production of troublesome abscesses. Usually, by persistence in its use, enough quinine will be absorbed by the buccal and gastric mucous membrane to bring the patient under its influence.

In regard to the employment of opium, much caution is required. It is not generally borne well at the commencement of the attack, especially if there be fever and determination of blood to the head. After a few days, when the system has been depleted by the excessive discharges, and symptoms of nervous exhaustion ensue, we may properly call upon its aid, and derive from it the most signal advantage. I prefer McMunn's elixir of opium to any other preparation for infants, and it may be given in doses of two to five drops, according to the age, and repeated at intervals of two or three hours, if necessary. Night is the best period for its administration, if the case will allow you to wait.

In urgent cases, we cannot wait until night before we administer quinine. When the danger is imminent, it must be given forthwith, and repeated until the patient is faily under its influence. As evidences of its sedative effects appear, discontinue or diminish the dose, and resume it if the fever does not continue to decline. Although the prominent symptoms may entirely disappear under this treatment, yet in many cases you will perceive that you have only produced an *intermission* of the disease; you have "scotched the snake, not killed it." Symptoms of hepatic torpor recur with *diarrhœa* and *anorexia*, and more or less febrile disturbance; in a word, a relapse is threatened, but this is usually much milder than the initial attack. By a proper administration of the mercurial and quinine, with the addition of astringents, such as acetate of lead, nitrate of silver, oil of turpentine, infusion of logwood, or red oak bark, you can generally soon place your patient in perfect health again.

In regard to the diet, whilst vomiting and purging are incessant, you cannot hope to nourish your patient. As soon as the vomiting ceases, however, you may commence to support it. The mother's milk is the best nutriment for it. If this is not to be obtained, then you will find the milk of the cow to be a convenient and as good a substituie as any other. In cases of extreme exhaustion, the juice of beef—that manufactured by Mr. Valentine in our midst—will often prove to be an invaluable adjunct.

VOLUNTEER PAPER.

The Physiological and Therapeutic Action of the Sulphate of Quinine.

By OTIS F. MANSON, M. D., Richmond, Va.

Although nearly two-thirds of a century has elapsed since the introduction of quinine into the Materia Medica, yet perhaps there is no agent in its vast catalogue concerning whose properties such opposite opinions are held, or which has elicited more discussion. When we reflect on the facts that its employment has been co-extensive with that numerous class of diseases known as Periodical Fevers and the protean maladies considered as arising from the same cause, and that it has been the subject of experiment and study among the most distinguished physicians of the age, it is a matter of surprise that no positive and generally recognized opinion should have been established in regard to its powers, properties and method of employment. Certainly an agent whose effects upon the organism are so prompt and conspicuous must have some definite mode of action, and surely a remedy whose transcendent virtues are the theme of almost universal praise, must possess a remarkable degree of certainty in its effects, and if potent for good cannot be altogether harmless, when untimely and injudiciously exhibited. Believing that this apparently irreconcilable diversity of views, in regard to its properties and *modus operandi*, has arisen from imperfect or limited observation, and in many cases from the bias of preconceived opinions, we think that the time has arrived when some definite conclusions can be formed on the subject. Facts, numerous and well-tested, are before us, and, with a conscientious desire to develop the truth, it shall be our endeavor to examine them impartially and to deduce from them correct conclusions and safe and salutary practical results.

History.—Early in the present century, the attention of practical chemists was directed to the analysis of several vegetable remedies, and among

these the various species of cinchona were the subject of investigation. Already morphine, strychnine and veratrine had been discovered, but no satisfactory analyses * of cinchona had been made until the year 1820, when *MM. Pelletier and Caventou*, Parisian Chemists, succeeded, after protracted and laborious experiments in discovering the salifiable base, which they termed *kinine*. Experiments were immediately made with it on animals by M. Magendie and by MM. Double, Villerme and Chomel on patients affected with intermittent fever, and by M. Renauldin † in remittents. Its employment became rapidly extended throughout Italy, England and Germany. "In 1822, Professor Mathias, ‡ in thirty-one cases of simple and double-tertian intermittents, effected cures by giving the sulphate of quinine, in quantities of from fifteen to thirty-five grains, in two or three days. This gentleman also reported two cases of remittent; the one cured by bark and the other by the sulphate of quinine. M. Rossi treated sixty-four persons laboring under intermittents, of different types and species, by means of sulphate of quinine; eight tertians, twenty-nine double tertians, two quartans, twenty-seven sub-continued and eight remittents were cured. Fifty patients had no attack after the first dose; seven had them in a slight degree. The quantity administered varied from twelve to seventy-two grains, but in twenty-four cases it was not necessary to go beyond twenty-four grains. M. Tonelli also relates that sixty-five cases of intermittent were cured, with the exception of one, which was in a hopeless state when the remedy was resorted to. Of these, four were quotidian, twenty-two tertian, thirty-one double-tertian, three quartans, two double-quartans, two sub-continued and one remittent. Forty-two patients never had a return of the paroxysm after the first dose. The quantity given to each varied from twelve to eighteen grains. In 1823, Dr. Giacomazzi, of Breschia, § Tommassini and others also employed it, and found its effects to correspond with those of the bark. In the July number of the *Philadelphia Journal of Foreign Medical Science and Literature* (Vol. II, p. 498, 1822) appeared a Review of the "*Analyse Chemique des Quinquinas, par M. M. Pelletier et Caventou* (à Paris, 1821)," and the "*Formulaire pour la Preparation et l'Emploi de plusieurs Nouveaux Medicamens, par F. Magendie*" (à Paris, 1821), in which the principal facts in regard to the dis-

* We are aware that Dr. Gomez, of Lisbon, had previously discovered cinchonine in an impure state.

† M. Renauldin communicated the first fact of this nature, and shortly after M. Magendie (in his *Journal de Physiol*, July, 1821), himself, had an opportunity of administering the same medicine with success. Vide *Magendie's Formulary* American edition, Phila., 1834, p. 52.

‡ *Magendie's Formulary* (from *Giornale Arcadico di Roma*, Noumbre, 1822), page 53.

§ *Traité de Matière Médicale et Therapeutique*, Par G. A. Giacomini, Professeur de Medicine Clinique, at Universite de Padua, traduct, par Mogon & Rognetta, Paris, 1839, p. 349.

covery, employment and effects of the sulphate of quinine were stated. Soon after articles from different sources appeared in the American Medical Journals, and its use rapidly became general.

The discovery of quinine was hailed by the profession in both hemispheres with enthusiastic delight. The objections to the bark, on account of its bulk, its bitter nauseous taste and its liability to produce vomiting and diarrhœa, were now obviated by the substitution of a light powder, which could be administered with facility, and whose ordinary dose at that period could be given in a pill. The distinguished chemists, to whom the profession and humanity itself became so signally indebted, received the plaudits of the civilized world, and must forever be entitled to the gratitude of mankind.

The introduction of the new alkaloid was soon destined to revive the controversy which had existed for more than a century in regard to the properties of the Peruvian bark, of which it was considered the substitute and representative. It is well known to the scholar that, since the time of Morton,* the most opposite views were held on the subject of the employment of the bark in special conditions of the system and in regard to its use in various diseases. By many—we may say, by the large majority of writers, cinchona had been regarded as the first and most valuable of *tonics*, possessing excitant and stimulant properties, which rendered its use hazardous in the presence of fever and inflammation; whilst, on the other hand, in the opinion of a numerous and powerful minority, it was held to be endowed with sedative and even antiphlogistic virtues in the same conditions of the organism. The controversy has therefore been renewed in our day, with as much zeal and earnestness as in the famous discussion between Rumazzini † and Torti ‡ in the past century. Happily, however, at present we possess facilities for the elucidation of the vexed question denied to those illustrious disputants. The advance of science has cast aside many obstacles in our path, and the improved methods of investigation of the present age and the accumulation of facts derived from the observations and experiments of more than a hundred years, must necessarily afford the most useful aid towards the solution of the problem.

Action of Quinine.—We propose, then, to follow the methods usually resorted to to determine the effect of medicine, by investigating: 1st. *Its action on animals;* 2nd. *Its effects on man in health,* and 3rdly. *Its effects on the human organism in disease.*

1. *Action on Animals.*—Although we are compelled to dissent from the declaration of Magendie that "medicines and poisons act in the same man-

* *Opera Medica*, Lugduni, 1737.
† *Opera Omnia*, Genevæ, 1717 (*De Abusu Chinâ Chinâ*, p. 218-238).
‡ *Therapeutice, Specialis, ad Febres Periodicas Perniciosas*, Leodii, 1712.

ner on man as on animals," * yet numerous experiments lead us to the belief that the sulphate of quinine produces effects on the human organism very closely allied to the phenomena observed, when administered to brutes.

The first experiments recorded were made by M. Magendie himself; † and he states that he at once perceived that it "possessed no poisonous property, and, indeed, manifested no immediate action whatever;" yet we are not informed in what quantities it was administered, or how numerous were his trials of the article. M. Briquet, ‡ however, is of the opinion that the quantity administered did not exceed *one gramme*, § and that the examination of the animals were not carefully made.

In 1840, M. Giacomini, a professor in the University of Padua, instituted a series of experiments on rabbits to demonstrate the views of the Italian School in regard to the *hyposthenisant* ‖ properties of quinine. Of fifteen rabbits, to whom he administered, on an average, twenty-three grains each, with one gramme of alcohol, six recovered, three died and six perished accidentally in the course of the experiments. Of eleven rabbits, to whom were given eighteen grains of sulphate of quinine, with four grammes of distilled laurel water, ten died immediately, and only one recovered. All of these animals were agitated, tottered in their gait, experienced slight convulsive movements, followed by extreme prostration and debility. After death, the veins of the pia mater and the large veins of the thorax, were found distended with black blood; the lungs of a roseate tint, and the mucous membrane of the alimentary canal of a normal color. These experiments were repeated by M. M. Saudri, Balardini, Ludi and Bergnoni with similar results. ¶

In 1843, Dr. F. Mêlier read before the French Royal Academy of Medicine a paper containing his "*Experiences and Observations sur les Propriétiés Toxiques de Sulfate de Quinine*," ** in which were related several experiments on dogs with that salt. As this paper has attracted considerable attention, we translate the only two experiments which were given in detail.

"*First Experiment.*—Thirty-one grains of sulphate of quinine mixed with a small quantity of water were introduced into the stomach of a young healthy dog, of medium size, *the œsophagus being tied.* After six minutes efforts to vomit, expulsion of thick, white mucus from the bronchi. After thirty minutes the efforts to vomit ceased; general trembling; indisposi-

* *Magendie's Formulary*, Preface to the 6th Amer. Edition.

† *Magendie's Formulary*, ed. cit., p. 50.

‡ *Traité Thérapeutique du Quinquina et de ses Preparations*, 2nd Ed., p. 21.

§ A French *gramme* is equivalent to fifteen-and-two-fifth grains of Troy weight.

‖ Term given by the Rasorists to agents which depressed the Vital Powers.

¶ *Briquet*, op. cit., p. 43.

** *Mémoires de l'Académie Royale de Médécine*, X 722.

tion to move; dilated pupils; pulse 135 per minute. After six hours, state of debility; general trembling; animal sad; respiration normal. After fifteen hours, respiration difficult; coma and insensibility. After twenty hours, animal lies on the side, convulsive movements, *subsultus tendinum;* stertorous respiration; death at the end of twenty-two hours.

Autopsy.—Sanguineous congestion of the pulmonary tissue; several portions of the lung of a blackish-brown color and hepatized; sank in water, whilst the remaining portions floated. Brain congested and its veins and arteries distended. The blood drawn from the vein at the moment of death remained fluid, or at least only formed a soft diffluent clot, resembling a species of jelly.

Second Experiment.—Forty-six grains of *acid* sulphate of quinine were introduced into the stomach of a healthy dog of medium size, who had eaten an hour before. The œsophagus tied. After fifteen minutes, violent efforts to vomit; copious expulsion of bronchial mucus. After an hour, general trembling; titubation; indisposition to move. After *eight* hours, condition the same; pulse 160 per minute; efforts to vomit ceased; tendency to repose, convulsive movements of the head; respiration very difficult. After twenty hours, death.

Autopsy.—Cerebral and pulmonary congestion. Congestion of the mucous membrane of the stomach; blood black and incoagulable. The urine, tested with iodide of potassium, gave a precipitate indicating the presence of quinine. The serum of the blood did not present this precipitate.

These experiments, which were repeated by M. Mêlier, were intended to ascertain the toxicological effects of quinine and the manner in which it produced death. They are evidently very imperfect, and do not justify the conclusion that the ordinary effect of quinine in large doses is to produce liquefaction of the blood and acceleration of the pulse. It is true that the salt given in such quantities as to paralyze the nervous system, must be followed by corresponding depression of the action of the heart and arteries; and in this state of debility, the heart doubtless acted with greater frequency. But this is merely the characteristic condition of extreme depression, by whatever means it may have been produced. A pulse of extreme frequency is the invariable accompaniment of extreme debility as well as the usual harbinger of dissolution. Nor does the apparent congestion of the cerebral and pulmonary vessels prove that death resulted therefrom. They were evidently passive congestions, arising from paralysis of the vessels. We shall show hereafter that quinine, so far from producing directly either congestion of the brain or lungs, is one of the most certain agents for the removal of those conditions.

It now becomes our pleasant task to notice the experiments of M Briquet in his *Traité Thérapeutique du Quinquina*, a work which, for its extent and

research, deserves the highest commendation. Although holding opinions ourselves diametrically opposite to his on some important points, yet we take pleasure in stating our conviction, that the vast array of facts and carefully conducted experiments found in his work, has given a notable upward impulse to the science of therapeutics, and must produce the most valuable practical results. We shall be compelled, not only from a sense of duty, but also from necessity, to quote his work frequently, as it contains information to be derived from no other source. At present, however, his experiments on animals particularly demand our attention.

This sagacious observer essayed a large number of experiments upon dogs, and first endeavored to ascertain the modifications produced by quinine on the circulation. By means of the *hémodynamomètre* of M. Poiseuille (an instrument invented to denote varying degrees of the force of the arterial current), he proved that the salt injected into the jugular vein in the direction of the heart of the animal, produced a depressing influence on the circulation. In six experiments, when the quantities of the salt varied from seven to thirty grains, the strength of the arterial current was reduced to one-tenth and to one-fourth of its normal force. In the thirteenth experiment, in which thirty-one grains were injected, death was suddenly produced. In the eighth experiment, twenty-six grains were used with fatal effects, at some period of the night. M. Briquet concluded from these and further experiments—

1. That the sulphate of quinine injected into the veins towards the heart in sufficient quantities, immediately suspends the action of that organ.

2. That this suspension produces death by a veritable syncope, resulting from an annihilation of the contractile power of the heart; for, in the first place, the suspension of the contractions of the heart is so sudden, and the loss of contractility so complete, that after death we find the left cavities of the heart and the aorta itself, filled with scarlet blood, which is never observed in ordinary deaths; and in the second place, the heart laid bare, exhibited only very slight vermicular movements, very different from those precipitate and energetic movements, observed in animals who have quickly died in other kinds of experiments. Lastly, the lungs were invariably found of light, rosy hue, as soft as eider-down and without the least trace of engorgement.

3. That the rapidity of death and the extent of the diminution of the contractility of the heart was in direct ratio to the quantity of the salt injected.

4. That animals offer very different degrees of resistance to the destructive power of quinine according to their strength. Thus, in the first five experiments in which the animals were vigorous and in good condition, thirty grains were necessary to produce the same results which doses of

eight to fifteen grains produced in those who were small, thin and feeble.

5. That the influence of quinine on the circulation is felt at least *twenty-four hours after* its introduction into the animal economy, and may *continue several days.*

6. That the relative proportion of fibrin in the blood was always augmented when a large quantity of the sulphate was administered, and diminished when it was discontinued.

7. That the relative proportion of blood-globules was diminished by the action of quinine.

8. That the serum of the blood was increased after its administration, but that this result, as well as the diminution of the globules, was due in part to the privation of food to which the animals were necessarily subjected during and after the experimentation.

Action on the Brain.—In the experiments just noticed, made to determine the action of quinine upon the circulation, and on the blood, its effects on the brain were also incidentally noted.

The quantities varying from fifteen to thirty grains were injected, the animals became restless, were affected with slight convulsions, subsultus tendinum, and tottered in their gait. But M. Briquet desiring to test more perfectly the effect of the salt on the encephalon, instead of injecting the medicine in the direction of the heart, through the jugular vein, injected the salt into the aorta, when immediately the animals became agitated, trembled, endeavored to escape, and clung with all their strength to the ground. Their eyes became bright and animated, the respiration and circulation were accelerated, and they exhibited extreme titubation. In two cases convulsions occurred. This ensemble evidently constituted a period of excitation, of brief duration.

In a few moments after two of these experiments, and at the end of four hours in two others, the agitation ceased; the animals laid down and were disinclined to move, or moved very slowly when forced to stir; the respiration became slow; the pulse small; and the skin cold.

The *diminution* in the *force* of the *arterial circulation* measured by the *hemodynamomètre* was shown in a *very evident manner*, in the *majority* of cases in this stage.

This condition continued until the recovery or death of the animal, and constituted a second period in which phenomena of *sedation* were conspicuous and always continued a much greater length of time than the period of excitement. The effect of quinine when injected in the direction of the heart was observed to be much greater than when injected in the direction of the brain. From these experiments M. Briquet drew the following conclusions:—

1. That the sulphate of quinine acting directly on the encephalon, pre-

sents in this action a first period, in which is exhibited clearly an excitement of that organ, but that this period is of brief duration and the effects of *moderate* degree.

2. That in the *second* period, which occurs *promptly*, and endures for a *long time*, signs of *sedation* are manifested, which, from their degree and importance, constitute, in a manner, the *veritable action of the agent.*

3. That the brain resists the sedative action of the salt with more energy than the heart.

4. That in cases where the introduction of the sulphate of quinine is effected *slowly* and *gradually, no phenomena* of *excitation* are observed; the animals only present titubation, *debility, torpor and disinclination for exertion;* then the steps are slow, uncertain and vacillating; their feet are separated far apart to enlarge the base of sustentation; they appear stupefied, and their pupils are greatly dilated.

5. That this action of quinine is purely dynamic, and only attains to the degree of inflammation in rare cases where its action has been too energetic or too direct.

6. When the injections of quinine are made into the *femoral artery, the pleura and the cellular tissue*, the same series of symptoms were always seen *except those of the period of excitation*, the period of *sedation only having been present.*

Action on Man in Health.—The effects of the sulphate of quinine on the human subject in health, have been frequently observed, and resemble those manifested in animals very closely. M. Magendie informs us in his Formulary,* that M. Caventou, being obliged to taste this salt very frequently while enaged in his experiments, felt a general excitation similar to that which is uniformly produced by coffee. Bailly,† who administered to himself 100 grains in a few hours at Rome, states that "he carefully examined himself and *could not* perceive any symptom of *irritation*, which such a dose would certainly have produced if such had been its nature." Unfortunately, however, he did not record the effects produced in his case, and he only left us to infer its effect on himself from his statement that "it is a *sedative of the nervous system* and solely of certain periodical and intermittent function of the same system, for it has no action on sensibility or locomotion." We would merely observe that it is a remarkable fact that such a quantity of the salt did not produce more sensible effects. Bailly, who in the year 1825 was assured of the stimulant action of quinine, was convinced afterwards that this action was *aniiphlogistic* and *sedative.* Instead of producing thirst or irritation of the stomach, it cleansed the tongue,

* *Op. Cit.*, 51

† *Traité Anatomico-Pathologique des Fièvres Intermittentes, etc.*, Paris, 1825, p. 424.

alleviated pain, *moderated the animal heat,* and *lessened* the *frequency* and *force* of the *pulse.* This last effect has been placed also among the most constant by Banquier, who observed as well as Bailly, that the *pulse* was *reduced* by *quinine* to *sixty-five* and even to *forty five beats* per *minute.*

Professor Giacomini, in order to determine the effects of quinine, instituted a series of experiments on himself, which, from the high character, position and learning of the author, deserve more than a passing notice, and which we therefore translate from his excellent treatise: "In the midst of these dissensions on the effects of quinine, I have thought that I could not do better to inform myself than by experimenting on myself, so I administered to myself at different periods in the winters of 1826 and 1829 repeated doses of the sulphate of quinine. I enjoyed at this time excellent health, although I was rather slender in person and very sensitive to the mildest excitants. My observations were made from 9 o'clock in the afternoon until 2 or 3 o'clock at night, whilst in bed and occupied in preparing the materials of my lectures. I have noted exactly the doses taken, the various states of my system and the atmosphere, and my feelings in clear, rainy, or humid weather, before and after sleep; in the course of the experiments and afterwards. The variations in the pulse have been noted exactly, whilst sitting or lying down. I will not reproduce the journal of my notes, for it would be too long and tedious. I will limit myself solely to the indication of definite results. During the forty-six days of my first experiments, the pulse increased two or three beats per minute at five periods only. This happened in the first experiment, having taken only six grains of sulphate of quinine, and two others when the wind came from the southeast, and I experienced *malaise* and thirst; and lastly, in a fourth experiment, after having drank *two ounces of rum.* There existed then particular circumstances to which this increased frequency of the pulse might be attributed, for at the other periods the *pulse constantly fell* from four to six beats per minute, and often even to twelve, especially when I took sixty grains in the course of the night. The greatest diminution occurred when I retired to bed, or at the moment of awaking from sleep in the morning. When the doses were less than fifteen grains, my head was less affected and I felt more lively, although feeling a certain sense of general disquietude. The large doses made me *somnolent, disturbed* my *ideas,* and were attended with *ringing* in the *ears* and *deafness.* When in the course of the night and until 10 o'clock the following morning, I had taken in small quantities at intervals, sixty-eight grains of sulphate of quinine, my pulse, which before the experiment gave sixty-four beats, was only reduced eight or nine pulsations, but it became feeble. I had fallen asleep sooner than usual and perspired very freely throughout the whole night, although it was winter. On awaking I was feeble, depressed, and my head felt heavy. On arising

from bed, I experienced vertigo and walked with difficulty. This state of depression and suffering continued until dinner time, when the deafness and general malaise ceased. Usually my appetite was increased, my mouth was clammy, but was never so after having eaten; the urine was more or less copious. I could not perceive any change in the intestinal evacuations. The first effects of the pulse manifested themselves an half hour after the administration of the salt. Twice I combined the sulphate of quinine with two ounces of rum. The first time I took it with the rum, when ten grains of it were used, deafness and frequency of the pulse were observed. The second time, having drank the rum before, and which increased the pulse eight beats in a half-hour afterwards, I took fifteen grains of the sulphate of quinine in two doses an hour apart. After having slept, it had declined seven pulsations, and in the morning it was reduced twelve pulsations below its habitual standard. I did not experience any uneasiness in the kidneys or bladder, nor any heat in the stomach, except once, when I was a little more thirsty than usual, and which arose from other causes. A slight injection of the conjunctiva occurred from the use of the rum alone, which was dissipated by the insufflation of the sulphate of quinine on the affected organ, which removed the phlogosis as by enchantment, without producing any heat, smarting or flow of tears. If, therefore, I must declare my opinion in regard to the dynamic action of the sulphate of quinine, I am enabled to say that it is exactly the reverse of that of alcoholic liquors, that is to say, *hypothenisante*, as I have proved many times on myself. This opinion can only be contested by the production of as many or more experiments, equally exact, demonstrating the contrary; or at least by proving that the above experiments are inexact or inconclusive."*

M. Guersant is the next author in point of time accessible to us, who has recorded his opinions on this part of the subject. As we desire to discuss the question impartially, however opposite the views expressed may be, and as his opinions are entitled to high respect, we quote them at length.†

"The sulphate of quinine produces very slight effects on the gastro-intestinal organs in their normal state. A sensation of warmth in the region of the stomach, and slight pain has been observed in a few individuals. It rarely provokes vomiting, but it sometimes produces intestinal pains, especially when the canal is in a state of inflammation. The solution and absorption of the sulphate of quinine in the stomach is effected with great facility and promptness, owing to the acids which it contains. From the intestines, it passes rapidly through the urinary passages, and at the end of two hours from its ingestion, it is found in the urine. The influence of the sulphate of quinine on the circulation is not appreciable in all persons; however, it

* *Traité de Matière Médicale*, 339.
† *Dictionnaire de Médecine*, Tome xxvi, pp. 565–570.

sometimes produces a remarkable reduction of the natural rhythm of the pulse. This phenomenon, which was remarked by M. Bailly, has been verified by several French and foreign physicians; nevertheless, it is far from being constant. M. Piorry, who has very frequently given the sulphate of quinine in large doses, states to me that he has never observed it. As to myself, I have observed it such a great number of times in healthy persons and patients, that I cannot doubt its reality. I have seen the pulse diminish from eight to ten pulsations in a half-hour, altogether from the administration of quinine in doses from fifteen to thirty grains. But when I have observed this effect on myself, I have found that it coincided with some slight precordial anxiety, so that it is probable that this action of the sulphate of quinine on the circulation is only the secondary result of its impression on the ganglionic nervous system. Whatever, though, may be the cause of this physiological effect, the principal phenomena first produced by the sulphate of quinine are displayed on the nervous system. Almost immediately after its ingestion into the stomach, it produces a kind of heaviness of the head, or transient *deafness, vertigo, dazzling and disturbance of vision*—sometimes a species of hallucination, and sometimes even a kind of temporary intoxication, analogous to that produced by champagne wine. This singular effect surprises and annoys the patient or persons affected when they have not been forewarned. More often, however, the sulphate of quinine only produces a few of the physiological phenomena we have mentioned—*deafness* alone being *constant*. When the physiological effects produced by the sulphate of quinine arrives at such a degree, as to affect the *senses* and to disturb the *mind*, then these nervous disorders are followed by *depression, debility* and *difficult locomotion*, but these primary effects are not usually of long duration, unless the salt is continued in large doses and at brief intervals. In the majority of ordinary cases, one or two hours after the reception of quinine into the stomach, a slight reaction supervenes; but it is almost always appreciable. This species of perturbation produced by the sulphate, is soon replaced by a state of *calm* and *comfort*. The pulse resumes its normal rhythm when it has been lessened; it becomes stronger and more full; a gentle warmth extends over the whole body, and is often accompanied with more or less perspiration, especially when the sulphate of quinine is given in divided doses; lastly, a feeling of strength succeeds to that of depression and debility." "These phenomena do not always present themselves in this regular manner, and the action of sulphate of quinine, like that of all powerful medicines, sometimes presents great anomalies, according to the different idiosyncrasies of persons in health and disease. Certain individuals cannot endure this medicinal agent; it produces in them, even in small doses, taken by the mouth or enema or by frictions on the skin, sensations of heat in the stomach, colicy pains or diarrhœa. In

others, an inexplicable distress, great anxiety accompanied with chills, prostration, cold sweats, agitation, and even in some, acute pains in the limbs, trembling and cramp occur. In a small number of cases, the sulphate of quinine, without causing all the symptoms, excites a veritable febrile movement, more or less continuous, even when the digestive organs are in the best possible condition. On the other hand, persons in health and in disease, have been observed who could support enormous does of sulphate of quinine without experiencing any sensible effects themselves, or which could be perceived by others. M. Piorry has assured me that he has often given sixty, seventy-five and ninety grains of sulphate of quinine in the space of a few hours, and has never observed any notable change except a temporary *deafness*. In some cases this physiological phenomenon has been carried to an extreme degree, and the *deafness* has become *permanent*. M. Itard had already cited this fact, and remarked that several deaf mutes owed their infirmity to the administration of the sulphate of quinine. M. Meniere has also assured me that he has seen several cases of deafness in persons who had taken large doses of quinine for the cure of intermittent fevers. However, it appears probable that those persons who have become deaf after the administration of quinine were already predisposed to that sad infirmity, and that the salt of quinine has only acted as an *occasional* cause."

The principal physiological effects of large doses of sulphate of quinine, even when they have not been given to such an extent as to produce poisonous effects, have been none the less sedative and perturbating to the nervous system ; but must we conclude with M. Giacomini, because the sulphate of quinine acts, more or less, at first on the general system, as a depressing agent, that this salt is a veritable *hypothenisante*, whose effects are analogous to blood-letting? This method of reasoning is evidently paradoxical. We must properly distinguish the two very distinct periods of its action in this regard, viz., a primary state of action, and reaction. In the first period, the sulphate of quinine, in large doses, truly appears to act particularly on the ganglionic and cerebro-spinal nervous systems, and particularly on the organs of relation, which it temporarily enfeebles; but if the large doses of the sulphate of quinine are not frequently repeated, or if they have not been sufficiently potent to affect the cerebro-spinal system profoundly, then the reaction takes place, more or less, promptly, the vital powers are re-animated, and a new exciting influence of the innervation extends itself throughout the whole economy. The same occurs, besides, with other medicinal agents, which are evidently stimulants, as alcohol for example. Moderate doses of alcohol increase the activity of the cerebro-spinal system, whilst excessive doses, on the contrary, often precipitate the healthy man into a state of prostration and intoxication, which has some

resemblance to the action of quinine in large doses. In truth, do we not observe in syncopal intoxication, paleness of the face, coldness of the extremities, failure of the pulse and strength, inability to move, and stupor of the senses; and are not these physiological phenomena the same as those in cases of poisoning by the sulphate of quinine, so that we might call it with reason the *intoxication of the sulphate of quinine?* We do not pretend to establish a perfect parity between the physiological phenomena produced by alcohol and those produced by the sulphate of quinine; the analogy is doubtless not perfect. Each medicament has its peculiar mode of acting, and we do not seek to explain that of the sulphate of quinine by comparing one with the other. We wish only to show that the sulphate of quinine, under certain circumstances, like alcohol, may present physiological phenomena of action and reaction, and may appear successively *hypothenisante* and *hyperthenisante*, according to the dose administered and the period at which the effects which it produces are observed.

M. Guersant concludes his observations, in regard to the physiological action of quinine, by declaring that its primary effect is to diminish the frequency of the pulse, to lessen the sensibility of the organs of hearing and sight, and to enfeeble the organs of locomotion; and reacting afterwards on the general system to increase all the functions, and particularly those of secretion and perspiration. These views are certainly peculiar in some respects, as will hereafter be discussed.

As far as our investigations have extended in the works accessible to us, we find but few observations recorded of experiments having been made on man in health in *our own country*. These are slender materials, though interesting. Dr. John Harrison, then Professor of Physiology and Pathology in the Medical College of Louisiana, in an essay on Yellow Fever,* written in 1845, gave brief notes of four cases, which we quote literally.

"Before venturing to give the sulphate of quinine in such large doses, and upon such a raging fever, Drs. Hunt and Mackie performed a number of experiments to test its physiological action. The experiments were performed in 1839, at the Charity Hospital, upon *convalescents* from *different* diseases. From notes furnished me by Dr. Hunt, I transcribe the following cases:

Case 1*st*.—At twenty minutes of 10 A. M., pulse 72; took fifteen grains sulphate of quinine. At 11 A. M. pulse 60; has *slept;* complains of heat at epigastrium; feels a little dizzy; pupils dilated. At half-past 12 P. M no other change.

Case 2*d*.—At 10 A. M., pulse 56; took eleven grains. At 11 A. M., pulse 48; has *slept;* has slight ringing in the ears; sweating freely a short time after taking the quinine. No restlessness.

* *New Orleans Medical and Surgical Journal*, ii, 331.

Case 3d.—At fifteen minutes of 10 A. M., pulse 64, took nine grains. At 11 A. M., pulse 52; has *slept;* pupils slightly dilated; no other change.

Case 4th.—At fifteen minutes of 10 A. M., pulse 100, took twenty grains. At 11 A. M., pulse 96; has *slept;* pupils slightly dilated; no other change. At fifteen minutes past 11 A. M., took fifteen grains. At half-past 12 P. M., pulse 92.

All these cases were watched. The effects are as narrated. They gradually wore off without any other change.

It may be mentioned here, that when the sulphate of quinine was given in large doses, a part of it was found, in the experiments made for that purpose, unaltered in the urine."

The views of Dr. Wood, late Professor of Practice of Medicine in the University of Pennsylvania, have been prominently placed before the profession for many years. They, however, deserve especial mention here, not only on account of the distinguished source from which they proceeded, but for the reason that they may be considered as representing the views of a large portion of the profession in this country. In his *Treatise on Therapeutics and Pharmacology,** after describing the effects of sulphate of quinine as a tonic at length, and which are so familiar as to need no repetition, he states, "Admitting quinia to be moderately stimulant in small doses to those cerebral functions which it specially affects, we have next to consider the question, whether the sedative effects undoubtedly produced by it, when largely given, are direct or indirect; that is, whether they proceed from an immediately depressing influence excited by quinine upon the encephalic centres, or are the consequences of a preceding state of excitation. To solve this question, it must first be determined what are the immediate effects of a large dose of the medicine sufficient to induce the ultimate prostration. Close observation upon the human subject and the lower animals has shown, I think, that so far as the brain is concerned, these effects are such as characterize excitation. The flushed face, the feeling of tension or fullness in the head, the sensitiveness to light, the buzzing and roaring in the ears, the vertiginous sensations, the involuntary muscular movements, the increased frequency of pulse and heat of skin, and the active delirium and convulsions which occasionally, though rarely occur, are all proofs of stimulation and active congestion of the brain; and these proofs are still further strengthened by the fullness of the vessels of the *pia-mater*, universally observed on *post-mortem* examination, and the evidences of positive meningitis, which have been observed in a few instances. It is true that these phenomena of excitation are much less observable when the same quantity is administered in small portions, at intervals of an hour or two; but in this case the stimulation from the several portions,

* Vol. 1, p. 242-3-4.

not exceeding the degree of tonic action, is scarcely observable in the pulse, and subsides before being fully reinforced by the succeeding doses; while the secondary depression of the whole accumulates, and in the end becomes very obvious. The excitant effects of the large, single dose may continue for two or three hours, when they gradually subside into a contrary condition, proportionate to the quantity taken; and when this is in great excess, the prostration is in the end extreme.

Now, this is the ordinary and necessary result of over-stimulation; and it is altogether supererogatory to imagine the existence of a directly depressing power in the medicine. The *stimulation* of an organ *first* excites its function; if it be continued and increased, the function is disturbed and becomes irregular; if still further increased, the organ is *overwhelmed by the congestion induced*, and its function is impaired or suppressed. The first excitement is thus followed by depression; and this is deepened through another physiological law, which determines that the excitability of a part is exhausted by over-exercise. Thus, after the first excitant effects of quinia, above referred to, have continued a short time, the cerebral centres become incapacitated for their duties through *their congestion and secondary exhaustion;* and cease to send forth the influence necessary for the support of the functions over which they preside or which they in any degree control. Hence the diminution or loss of hearing, the occasional loss of sight, the general feebleness of the muscular power, the trembling, the gradually diminishing frequency and force of the pulse, the coldness and pallor of the surface, and the universal prostration. Now, this is a very different condition produced by a direct sedative to the nervous centres, or to the heart itself; and though it might prove useful in certain cases if safely induced, yet in determining upon the propriety of having recourse to it, reference must always be had to the possible danger of the great over-excitement and congestion of the nervous centres involved."

It will be seen that the facts and opinions of the authorities cited not only in regard to the phenomena observed, which followed the administration of quinine, but in respect to the *modus operandi* of the salt, are entirely opposed to each other, and are in many respects altogether irreconcilable; and were we to stop here, we would approach the treatment of the diseases in which the agent is usually employed, assailed by fearful doubts and anxieties, yet we shall see hereafter that the dispute is rather physiological than practical, and that when these contestants meet at the bedside, they are often singularly unanimous in their therapeutic procedures. Let us proceed there with them. Let us carefully examine the symptoms and nature of the disease which they all succeed in removing or mitigating; and then having carefully observed the effects of the remedy in disease, recur to its physiological phenomena. By comparing one with another,

we trust that we may arrive at, or approximate a satisfactory solution of the question.

Effects in Disease.—As it was in the treatment of diseases of the intermittent class that the parent tree of our valuable remedy was first introduced, so we find the first experiments with the new remedy were made in those maladies; yet we find such diversity of doctrine in regard to the nature of that species termed fevers, that we prefer to investigate its action first in the simplest form of intermittent disease, viz., *in neuralgia.*

It is well known, and admitted, we believe, by all practically conversant with the subject, that neuralgia of a strictly periodical character is often produced by the same morbid agency which gives rise to simple intermittent fever. Prevailing in the same localities, prevalent in the same seasons, preceding, alternately with, and succeeding to periodical fevers, exhibiting the same types, the same phenomena of intermission and remission and yielding to the same treatment, the identity is almost perfect, except the frequent absence of fever, which is, however, present sufficiently often to make the similitude complete. These neuralgiæ are the *febres topicæ* of the old writers, the *fièvres larvées or masquées* of the French, mentioned by Morton, Van Sweiten, Huxham, Senac, Casimir Medicus, Sauvages, Chomel, Mongellaz, Bonnet, Nepple, Macculloch, Holland, Drake. Jolly, and others, to whose works we refer the reader who has any misgivings on the subject. These neuralgiæ may be seated in any portion of the cerebro-spinal or ganglionic centres, or in the minutest branches alone of the nerves of either of those systems.

Of this affection, let us take up *toothache*, not only on account of its apparent simplicity, but because the disease is here almost present to our vision; we can almost see here the morbid process. Let us illustrate it by a case.

We were called to see a gentleman afflicted with this painful malady. He experienced the most intolerable agony, which he thought arose from a carious first molar of the lower jaw; but said that all of the teeth of that jaw on that side seemed painful. As the suspected tooth had a very large cavity, and was entirely useless, I extracted it and left him apparently relieved. Again I was summoned to attend him on the evening of the next day, and found his condition much worse. The tissues of the whole face on that side were very much swollen and of febrile heat, the pain in the jaw, which he now referred to the molar tooth next to the seat of the one extracted, was extremely violent, amounting to agony. The muscles of the jaw were swollen, tender, and rigid to such a degree that it was impossible to open the jaws more than half an inch. He had taken a large quantity of laudanum and a quart of brandy (though a temperate man), but with very little relief. He informed me that on the morning before, after extracting the tooth, the pain was almost relieved, but that it returned in the evening, and

on the next morning (that of my second visit) the pain remitted again, but soon returned, and placed him in the condition I found him. Suspecting the malarial origin of the affection, I gave him twenty grains of quinine at a dose. In half an hour he was asleep, for the first time in thirty-six hours. His pulse, which had been excited, became tranquil; the skin, which had been above the normal temperature, and dry, became soft, moist and of natural warmth, and next morning, on awaking, the pain had vanished and the inflammation of the muscles of the jaw and general swelling of the face had diminished to such a degree that he could eat his breakfast, and after continuing the medicine for two days in ten grain doses, he was entirely recovered.

Now, what was the nature of this affection? He lived in a malarious district, and had been subject to intermittent fever; he had been first attacked with pain in the dental nerve of a remittent character; whether that pain arises from inflammation of the nerve or not is a mooted question; let us therefore call it irritation; this irritation continuing gives rise to all the phenomena of inflammation in the surrounding tissues. The sulphate of quinine relieved this pain; it subdued the inflammation; it produced sleep; it reduced the pulse; and arrested the fever. Here plainly it acted as an *anodyne, narcotic and sedative.* It effects were not analogous to alcohol, for that failed. It was more potent than opium, for that remedy had been taken in an otherwise dangerous quantity, and failed to relieve the pain but slightly, and was utterly impotent to induce sleep.

To demonstrate more clearly the nature of this affection and the effect of the remedy, we quote interesting cases from other writers:

"In the month of February, 1820, a child aged four years was attacked for the first time with intermittent fever, during which he complained violently of a pain in the teeth. A second paroxysm returned the third day, and was characterized by the following symptoms: teeth dark, but clean, as if they had been plugged with lead; tongue red; extreme thirst; respiration laborious and frequent; pulse strong and hard; odontalgia general, evoking the cries of the child, although his teeth appeared sound. M. le Docteur Goury, recognizing a tertian fever, of which the predominant symptom was odontalgia, rejected the application of leeches to the epigastrium, which had been advised, and prescribed a potion composed of a drachm of extract of cinchona, a quarter of a grain of extract of opium, and an ounce of syrup of cinchona in four ounces of distilled water of centaury, to be taken in divided doses. He prescribed as a drink an infusion of camomile mixed with good wine. The day following, the teeth appeared very white and healthy; the child was very lively and felt no effects of the access of the preceding night, which having commenced at 7 o'clock in the morning, terminated like the first, at 2 o'clock in the afternoon. To this

day of intermission, a third access succeeded, which was very short and less violent than the preceding, and during which the odontalgia was supportable. The same prescription was ordered, only it was increased by the addition of a half drachm of extract of cinchona to the potion. The fourth access was still less intense, and the fifth entirely failed to appear. The same treatment was continued for four days to insure the cure; this appeared to be secured, when three weeks after the child experienced another attack of fever and odontalgia; but this time, in place of the quotidian, it assumed the quartan type. The same treatment so moderated the second paroxysm of this *novel fever*, that the third did not take place. Since that period, the little boy has enjoyed excellent health."*

The reader will perceive that in this case the symptoms of intermittent fever were so completely intermingled with those of neuralgia that they cannot be separated; they had the same march, the same relapses, and the same change of type; they were evidently one and the same disease and yielded to one treatment. The following was an analogous case:

"A delicate young lady of a nervo-sanguine temperament, residing at a a woollen manufactory, was affected for eight days with a simple quotidian fever (September, 1823). A few grains of opium arrested the disease. But three days afterwards the patient was awakened suddenly by a violent acute pain in the last superior molar tooth, which was carious. The pain extended over the whole of the lower jaw, the upper part of the pharynx and the muscles of the tongue, producing in these parts a horrible, painful, tetanic contraction. All these symptoms of suffering disappeared suddenly in the morning, to reappear in the same manner at the same hour every night. The fourth day I extracted the tooth, and in place of the adontalgic paroxysm the primitive intermittent fever again appeared. This passage of an intermittent fever to a neuralgia and of the latter to an intermittent fever of the same type, prove that these two affections do not differ in their nature, and are related to the varying phenomena exhibited by the nervous system."†

The following case not only displays the properties of the sulphate of quinine, but tends to throw some light on the pathology of malarial diseases:

In the summer of 1866, I was called at night to seen an infant male child only six months old, exhibiting the usual symptoms of infantile colic. The usual remedies only had a momentary effect in allaying the violent paroxysms of pain. In the forenoon of the next day, however, the child seemed relieved, but I was summoned on that night to attend him again with the same symptoms, which continued until noon, when remission of

*(Goury, *Bulletins de la Faculté de Méd.*, *No.* 8) quoted by Mongellaz, *Des Irritations Intermittens*, I, 222.

†*Essai sur les Fièvres Rémittentes et Intermittentes*, Par T. Frédéric Nepple, D. M. P., Paris, 1828, p. 232.

the symptoms recurred. About three o'clock at night, as before, the symptoms recurred with extreme intensity, and, in addition, evidences of unmistakable inflammatory action set in. The child had fever, the abdomen was hot, timid and exquisitely tender on pressure. The treatment hitherto pursued consisted in the use of aperients, anodynes and antispasmodics, but the symptoms now assuming a grave character, and the periodical character of the disease being evident, I determined on the employment of the sulphate of quinine. Three grains were given in three doses, at intervals of four hours, but the paroxysm recurred at night. Five doses of one grain each were now administered throughout the day. Under the operation of the quinine the child fell asleep and continued in deep slumber for twelve hours. The fever declined; perspiration ensued, the pulse fell from 160 to 100 beats per minute, and the paroxysm was averted. Rapid convalescence ensued under the use of the same remedy in diminished doses.

Here evidently the ganglionic nerves were the seat of neuralgia, which developed inflammation of the intestines—both yielding to the same treatment and resisting every other means.

Let us now pass on to the interesting subject of *Periodical Fever*, and observe the effects of the sulphate of quinine in the various forms and grades of disease classed under that title. The virtues of the sulphate of quinine in simple intermittent fever, are too well known and admitted to require discussion. All writers admit its potency in this form of the malady, however they may differ in the method of its employment; but its use in the remittent and pernicious forms have been the subject of much controversy. On the other hand, there are some who contend that its employment should be restricted to the stage of remission, and that it is hazardous to employ it while active fever is present; whilst on the other hand many as strenuously insist upon its speedy employment, without reference to the degree of fever, and despite of the presence of symptoms denoting inflammation of the vital organs.

Cases of mild character, we well know, will recover without the exhibition of quinine or any other remedy; the disease being often self-limited in its character and terminating in health either from the elimination of its cause or the exhaustion of susceptibility to its action, or, as some regard it, from the curative powers of nature. But it is needless to state that many cases of remittent and even simple intermittent fever which appear at the onset to be devoid of danger, frequently assumes a dangerous and menacing character, and that it is therefore impossible to predict at the commencement of an attack, what its subsequent course and gravity may be. "To wait for a remission," as the phrase is, will often be equivalent to the loss of a patient, and has been justly termed a "meditation on death." Nor is the remission the most favorable period for the administration of quinine. If we examine the course of the disease, we will find that in the large ma-

jority of cases the exacerbations are ushered in by a condition resembling a cold stage, however imperfectly developed it may be, and often eluding the most vigilant observers. In many cases this imperfect cold stage is only marked by a *slight coldness* of the *extreme parts*, such as the *tip* of the *nose*, *toes* and *fingers*—the *rest of the body maintaining a febrile heat.* This diminished temperature is often unperceived by the patient, who, on the contrary, has only febrile sensations during its existence; but however slightly marked the cold stage may be, or even if it be entirely imperceptible, we know from the very nature of the disease that there is a period in its course which corresponds to the cold stage. Now the *remission* almost always occurs *just before* the period of the cold stage; and if quinine be given in the remission, which, in the large majority of cases, is a very *brief* period, its *full effects* will not be obtained in time to prevent the cold stage or the succeeding exacerbation. Given, then, in the remission, it has to incur all the difficulties in the way of absorption to which all medicines are liable in an *ascending fever*, and in the presence of *high exacerbation.*

At what period, then, is it most advantageous to administer the remedy? If we examine the natural history of the disease, we will surely ascertain that the exacerbation, in the vast majority of cases, takes place in the afternoon or at some period of the evening before midnight; and that the cold stage very rarely occurs between 9 o'clock P. M. and the rising of the sun of the following day. Close observation for forty years in regions rife with malarial fever, has convinced us of this fact; and also that, however high the fever may be, or however continuous in its character, the febrile action commences its natural decline at some period of the late hours of night is certain. This is the period we then select for the administration of the sulphate of quinine. It will be sufficiently early to anticipate the next paroxysm, and to prevent this, is all that is necessary for the safety of the patient. We know well from our own observation that the remedy may be given at the acme of the exacerbation without dangerous consequences, but it is an *unfavorable period* for its *administration.* The *stomach* then is in its *most irritable condition*, often rejecting the *blandest fluids* It is a period in which the *absorption* of the salt takes place with *most difficulty*, and in which its unpleasant effects on the brain, embraced in the term *cinchonism*, are most *readily developed.* Given at night, however, when, as we observed, more or less declension of the fever usually occurs, it tends to hasten the *downward tendency* of the fever. Its *tendency, in full doses*, to produce *repose and tranquility of the cerebro-spinal system* is *assisted* by the *natural* and *habitual tendency* of that *division* of the *nervous system* to *repose* in the *night season.* It reduces the febrile heat and the frequency and force of the pulse at *that period* with more *ease* and *certainty;* for it has *less arterial force* then to *overcome;* and when the

usual period for *remission* arrives, the patient is completely under the influence of the agent and fully prepared to resist the onset of the next paroxysm. *Whether*, however, *there is any sensible decline of fever* or *not*, the coming *day* ought not to *dawn* upon a patient *unprotected* against the perils of the *surely approaching paroxysm. That is a certain danger*, which no one will contest. The *hazard* of the effects of quinine *admit* of *question* when given in *reasonable* quantities and otherwise *judiciously* administered; or if this be denied, the *danger of another exacerbation* cannot be. At the worst, then, we oppose a means of *doubtful* hazard against a *certain* calamity. The surgeon who would refuse to use his knife in a case where the chances were in favor of his patient from the exercise of his skill, would be guilty of no greater dereliction than the physician who would expose his patient to the pitiless mercy of disease because half of the world told him that there might be some danger in the means, and the other and better half told him there was none. In making these declarations, we intend no disparagement to those who entertain different views, but we shall prove hereafter that these views are not held by those who have had the best and most frequent opportunities of combating the disease under consideration, and that *they must yield* to the unanswerable logic of indisputable *facts*.

Let us then inquire what are the effects of the sulphate of quinine in the disease under consideration, when taken in the midst of febrile action, as reported by those who have had the best opportunities of forming a correct conclusion. In ordinary affairs, when a matter is in dispute, we summon our witnesses and interrogate them, and when two parties of equal intelligence and veracity give contrary opinions, we decide between them by an inquiry into their relative opportunities for observing and the number of corroborating or demonstrative facts they present. This is the common-sense and common-law rule which we shall endeavor to apply in the decision of the question before us. To demonstrate the effects of the sulphate of quinine in remittent fever, we must first glance at the leading features of that disease, and then by observing the changes which occur after the administration, we shall be able to form some idea of its action.

The *onset* of remittent fever is generally sudden; and in cases where premonitory symptoms are present, they are usually of brief duration. The patient has an irrepressible foreboding of evil, is languid, inclined to be drowsy and disinclined to exertion. He experiences fugitive pains in his head, neck, loins and limbs, and sensations of chilliness are felt running along the spine, and from thence irradiating to the extremities, succeeded by flushes of heat. The appetite fails, or is capricious; the tongue is slightly covered with a white fur; the bowels are generally costive and occasionally alternating with diarrhœa; the urine is copious and limpid,

and there is frequent micturition attended with a sensation of heat in the urethra.

The *invasion* is almost invariably ushered in by a chill, the sensation of cold varying from an evanescent tremor to a distinct and prolonged rigor, *which may occur at any time of the day or night.* This *initial* chill is usually felt sensibly by the patient, however, and the reduced temperature of the extremities is evident to the touch of the attendant. The patient is restless, sometimes amounting to extreme jactitation. He is thirsty and complains of a sensation of internal heat; his breathing is accelerated in some cases unequal and interrupted by sighing and yawning; the pulse is frequent, small and sometimes irregular; pain in some region of the head is usually present, as well as in the *spine*—the latter often very acute and distressing and constituting the principal suffering of the patient. Nausea and vomiting are occasional symptoms; but, according to my observation, not so generally present as it is usually stated. This stage, in ordinary cases, is commonly of short duration, and is soon followed by decided reaction.

During the *exacerbation* the skin becomes hot and dry, the face flushed and a roseate glow is perceptible over the general surface. The eyes are injected, prominent and usually bright. The cerebro-spinal pains increase in intensity and assume a throbbing character. The pulse acquires volume, force and regularity, but is almost invariably *compressible.* The respiration becomes slower, more regular and less laborious. The tongue becomes dryer and more coated, and the secretions of the mouth viscid and tenacious; the thirst continuing, but is not usually so urgent as in the chill. These symptoms increase in intensity until they amount to an acme of exquisite suffering, and then gradually decline.

The *remission.*—Late in the afternoon, usually between the hours of five and eight, in very mild cases, but postponed to some period between midnight and sunrise in more violent attacks, the fever and its concomitants sensibly begin to yield and the patient sinks, exhausted with suffering, into a slumber of variable duration, from which he awakes more or less relieved. The skin becomes less hot and relaxed, the tongue moist; the painful sensations abate and often entirely vanish; the respiration becomes easy and free, and the pulse diminished in frequency and strength. This respite from suffering is usually, however, of short duration, being soon followed by the recurrence of the stage of congestion or chill. As the *succeeding chills,* however, differ in some important features from the initial chill, we devote to them an especial notice.

The *chill proper of remittent fever.*—This, according to my observation, never occurs between the hours of 9 P. M. and the rising of the sun of the following day, but usually between the hours of 8 A. M. and 12 M.,

and occasionally between 6 and 8 P. M. At or near these periods the watchful attendant will perceive a sensible diminution of temperature of the extreme parts, viz., the nose, toes and fingers—of the whole hands and feet will be found below the natural standard, being cool and damp—the *rest of the surface retaining its febrile heat*, more evident in the cerebro-spinal and epigastric regions. In this condition, the patient rarely complains of any sensation of cold, but often of heat, desires to be fanned, the clothing to be removed, and entreats for cold drinks. The pulse is frequent, but usually regular; the bowels torpid, but easily excited into action. Nausea and vomiting are sometimes present, the fluids ejected being usually of a bilious character. The respiration is not much affected, but the patient yawns and gapes and sighs deeply. The duration of this stage is usually brief, rarely lasting more than an hour, and is succeeded by the reaction which is marked by an extension of the febrile heat over the whole surface and a repetition of the symptoms of the first exacerbation just described. As the disease advances, the pulse becomes increased in frequency, quickness and tension, but diminished in volume. Evidences of organic irritation or inflammation of some one or more organs become developed. The tongue becomes more coated and acuminated with a perceptible redness at its extremity and on its borders. More or less tenderness on abdominal pressure will now be felt with gastric and intestinal irritability, attended in some instances with an intolerable burning pain, most intensely felt during the chill. Percussion will generally detect an increase in the size of the spleen, and later, the hypertrophy becomes evident to the eye, particularly when the patient is in a sitting posture. Diarrhœa may now make its appearance, but usually is postponed to an advanced period; but it now may be observed that aperients of the mildest kind are prone to produce intestinal spasm and hypercatharsis, and particularly near the chill period. The disease now progresses with aggravation of the cerebral and gastro-enteric symptoms until, from the third to the fifteenth day, it usually terminates, without the interference of art, in fever of pernicious or algid character, or of a more continued type or in intermittent fever.

Such are the symptoms observed in the course of an ordinary attack of remittent fever—the conspicuous features of which are cephalalgia, restlessness, quickened respiration, excitement of the heart and arteries, nausea and vomiting, and all this with great disturbance and exaltation of the calorifacient function. In the more severe grades, all of these symptoms are aggravated, and delirium convulsions and coma betoken the serious involvement of the brain and spinal marrow; uncontrollable nausea, bilious vomiting, gastric pain and abdominal tenderness pronounce the

stomach, liver and bowels to be seriously implicated, whilst the prominent enlarged spleen tells of its distention and congestion.

When we examine the cadaver, what an array of lesions present themselves! No part of the system seems to escape injury. Inflammation of the brain, spinal marrow and the gastro-enteric mucous membrane, various alterations of the liver in consistence, color and size appear; nor do the lungs escape—pneumonia of the most fatal character having often been observed arising as a consequence, a legitimate lesion * or accidental complication. † Now, the sulphate of quinine has been given thousands of times in all the varieties, types and grades of remittent fever in Europe, Africa, Asia and America; it has been given in all of the stages of the disease and in every variety of dose, and with the most beneficial results. If human testimony avails anything, then we have the most overwhelming proofs of its efficacy from those who have had unlimited opportunities for observing the malady in its most perfect development. Its action has been carefully watched from the moment of its administration to the hour of recovery; cases, the records of which would fill many large volumes, have been given to the world in illustration, and it would seem that if the rules which should guide its *therapeutic use* and the mode of preventing its abuse could not be laid down now that we might almost despair of their ever being accomplished.

To the French physicians we are indebted for the first experiments with the sulphate of quinine in remittent fever. We have the authority of M. Magendie for the fact. He states that "M. Renauldin communicated the first case of this nature," and that shortly after he, "M. Magendie himself, had an opportunity of administering the same medicine with success." ‡ This was published in his *Journal de Physiol.*, July, 1821. In 1822, Drs. Rossi, Tonelli and Matthias also employed the sulphate of quinine in remittent fever with success. The statement was published in the *Giornale Arcadico di Scienze at Rome*, November, 1822, XLVII, p. 129, which was noticed in the *Journal of Foreign Medical Science and Literature*, Vol. IV, 347, published then at Philadelphia in 1824. We are not informed concerning the special effects produced by the remedy in these journals, but the reviewer states "that it has a rapidity of effect, especially in *pernicious* and *sub-continued* intermittents, far surpassing that of the bark, and that it was proven that large doses produce no bad consequences; in other words, that it can never act poisonously; that it may be safely given to

* "J'avais établi, contrairment á l'opinion commune que la pneumonie, an lieu de suivre une marche continue, pouvait se montrer avec un des types des fièvres palustres, reconnaître pour cause la même infection miasmatique, et céder promptement à la même médication spécifique." Grisolle, Traite de la pneumonie, 2 me. edition, 411.

† La Roche, Pneumonia and Malaria, pp. 502.

‡ *Magendie's Formulary*, ed. cit., page 52.

persons of all ages and temperaments, to pregnant, puerperal and menstruating females; and that when it fails, the failure is owing to accidental causes." "In 1823, Dr, Giacomazzi, of Breschia, declared that the sulphate of quinine was a very powerful *contra-stimulant*." *

In the *Medical Recorder*, of Philadelphia, Vol. XI, 174, appeared an analysis of a paper written by Dr. H. Perrine, which appeared in the Philadelphia *Journal of the Medical and Physical Sciences* of November, 1826, entitled "Large Doses of Sulphate of Quinine in Fevers," in which is quoted a case of malignant remittent fever which was cured by large doses of the remedy, "eight grains being administered every third hour until sixty-four grains were taken." "Dr. Perrine closes his remarks by observing: My observations so far exhibit the following as one of the successful modes of treating our autumnal fevers—whether congestive or inflammatory: bleeding whenever the symptoms require it, a dose of from six to twelve grains of sulphate of quinine every two or three hours, at any period of the *fever*, until its symptoms in the pulse and skin are subdued. Then purgatives to obtain copious, consistent evacuations from the bowels until they regain their usual power. Subsequent attempts to *form fever* should be counteracted by a large dose of the quinine."

We have thus far traced the introduction of large doses of quinine as a sedative in fevers into this country, and we believe that *Dr. Perrine has the honor of first promulgating that fact in America.* In Italy, where malarial fevers are habitually endemic, this practice early found its warmest partisans. M. Giacomini† states in several places in his works that Prof. Tommassini has considered the action of the sulphate of quinine as contra-stimulant, "and that as to Rasori, all the world knows that he regarded that substance for a long period as a contra-stimulant." "Silvy, a French physician, is convinced that, contrary to the opinion professed in his country, that sulphate of quinine was an antiphlogistic remedy; he had observed, in fact, in sixty-five patients, that on the morrow after the administration of quinine, the pulse declined from six to twenty pulsations, and that it did not rise again, although the dose had been increased to thirty grains a day. He did not observe any sign of *gastro irritation*, dyspnœa, nor *irritation of the urinary organs;* these symptoms, on the contrary, *disappeared under the use of the medicine.* Bailly,‡ who practised in Rome among the intermittent, remittent and pernicious fevers prevalent there, who was perfectly familiar with their symptoms, progress and morbid anatomy, and who has left on record an invaluable transcript of cases, in

* *Lett, H.*, intorno alla malat, ed alla guarig, di una seg, bresciana, *Breschia*, 1823, quoted by *Giacomini Traité de Matière Médicale*, 349.

† *Op. cit.*, 349.

‡ *Trait des Fièvres Intermittens Simples and Perniciénses*, Paris, 1825.

which every description of complication is faithfully described under the names of *Fièvres comatenses, delirantes, convulsives, epigastralgiques, gastriques, hepatiques, peritoniques, gastro-enteriques, gastro-cephaliques, arachnitiques, splenitques and pneumoniques;* in which all the organs of the great splanchnic cavities were involved either singly or combined, as shown by the phenomena during life, and proven by the examinations of the cadaver, did not hesitate to give the sulphate of quinine boldly, regarding it as the *sheet anchor of safety,* "*the specific sui generis,*" a sedative of the nervous system, "*en un mot une des plus belles acquisitions que la médecine ait faites.*" "A single bleeding," he states, "a single purgative, and a single administration of the cinchona terminates at once the malady." "I act against all the elements of these diseases; I *diminish the activity* of the vascular injection; I derange the *movements which tend to establish it;* I favor the absorption of that which may prove vicious in some portions of an organ or system of organs; in fine, I stupefy the periodical function of the nervous system. For the cinchona *does not* appear to me to possess the *stimulant and tonic properties which have been accorded to it,* and it does not cure diseases by inflaming the stomach; it is not by derivation that it prevents the return of the paroxysms. The success which has been obtained from its use in sub-continued pernicious fevers, in which the paroxysms are *not separated by appreciable intervals,* and in consequence of which there should be present as acute lesions of the stomach as are observed in the most violent fevers; all these reasons evidently prove that it may *suppress the paroxysms,* even when administered at the *height of fever.*"

If, leaving the classic shores of Italy, we visit Africa, we behold the skillful and intrepid Mailott, bravely battling against the concentrated miasms of that deadly clime. Here are presented to us the most fatal examples of the force of that poison, more noxious than the upas; and like the thunder-bolt of heaven, often destroys its victim at a blow. But little time is allowed here for argument as to congestion of the pia mater or gastric irritation. We must act on the instant, or death claims its victim. Here we observe our heroic remedy displaying its mighty power. To the brain congested, as in apoplexy, it brings rapid relief; to the cerebro-spinal membranes, which Maillot invariably found inflamed after death, we offer the agent, which has been accused of inflaming them—exclaiming "*similia similibus curantur!* And with what results. Let one speak who "came and saw and conquered."*

"It is to you, my dear Maillot, that we owe this success; it is to you, who demonstrated to us the nature of the gastro-cephalic intermittents of Bone; it is you who fixed our attention on the pernicious fevers which sur-

* *Vide,* "*Lettres sur la Traitement de Fièvres Intermittens de l'Algeric, etc.,*" par F. C. Maillot, Lille, 1846, p. 6.

rounded us, and who indicated to us its treatment. Before your arrival here, in 1833, I was witness of that summer crisis, during which we lost 1,100 patients, and when I saw with grief all our methods of treatment failed. We *recognized perfectly the gastro entéro-cephalitis*, but the *treatment* applicable to that disease *scarcely ever succeeded!* So it was with enthusiasm that we adopted your medication, and by your example the sulphate of quinine, in doses of twenty, thirty, and eighty grains, *superseded bloodletting* with immense advantage. It is then to you, my friend, that we are indebted for a correct knowledge of the diseases of Bone. It is with pleasure, I repeat it, because it is my conviction, and I desire to pay you this debt. Placed in an independent position, and sheltered from all spirit of ridicule and jealous rivalry, I am happy to render to Cæsar that which belongs to Cæsar. My testimony cannot be suspected.

HUTIN, Chirurgien en chef á l'hôtel, royal des Invalides."

If we turn to the admirable work* of M. Maillot, in which he has recorded many illustrative examples of the pernicious fever of Algiers, and examine the symptoms of the disease so fully and faithfully detailed, we cannot fail to deduce a satisfactory opinion in regard to the effects of the sulphate of quinine. Characterized by all the symptoms of ardent fever, an "atrocious headache," delirium, convulsions, coma, *subsaltus tesdinum*, a hard, full and frequent pulse, dry, burning skin, inextinguishable thirst, dry tongue, nausea and vomiting; these phenomena disappeared "as by enchantment" under the use of the sulphate of quinine in doses of from twenty to eighty grains. It is true that this medicine was often preceded or followed by blood-letting, general and local, as was eminently proper; but the latter was found utterly insufficient to control the disease, without the employment of the sulphate in the most liberal manner. What can be the action of a remedy which *arrests such a disease*—that *relieves active delirium, profound coma, reduces* the *pulse* to its *normal standard, allays intense febrile heat* and all the *distressing symptoms of violent pyrexia*, in the *most prompt manner?* Can it be an excitant—a stimulant? Would any sane man exhibit a stimulant in such a condition of the system? Would the bravest, the most reckless, *dare* to throw into an organism, *excited to frenzy already*, an agent having the remotest resemblance to an *excitant?* If we were to admit that the remedy produced sedation by first exhausting the excitability of the system, *who* would *venture* on such a *perilous* and *circuitous* route, in the face of so many dangers to secure it? *To ask these questions is to answer them.* The issue here can only be avoided by irrational and incredulous skepticism. But neither doubts or denial will here avail; the decision of the question does not rest alone on the cases or results of the

* *Traité Des Fièvres Intermittentes*, Paris, 1836.

treatment of M. Maillot, as numerous and well attested as they are, although, as he tells us, they were "*many thousands* in number," and are corroborated by the majority of the physicians of Algiers. We shall see that they are attested by "a cloud of witnesses" equally as competent and veracious. We have the valuable testimony of Dr. Samuel A. Cartwright,* formerly of Natchez, Miss., one of the most skilful and discriminating practical physicians which this country has ever produced, and the value of whose contributions to medical science have been recognized in every portion of our country. In an address before the Medical Convention of the State of Mississippi in 1846, this physician said that "Dr. Perrine (as we have before stated), Dr. McPheeters and Dr. Metcalf, our worthy president, nearly twenty years ago, introduced the practice of giving quinine in our paroxysmal fevers." In 1826, Dr. Perrine, in his own case, took during the febrile paroxysm eight grains of sulphate of quinine at a dose, which reduced the pulse. Soon afterwards, Dr. McPheeters adopted the plan of giving quinine during the febrile paroxysm. In 1827, Dr. McPheeters and I used the quinine very extensively in large doses—six or eight grains in an epidemic fever characterized by a very frequent pulse and great determination to the head. We gave it in the febrile paroxysm and found it to be much more effectual than in the remission of that particular fever."†

The record of cases presented by Dr. Wm. M. Boling‡, of Alabama, in his excellent paper on the *Treatment of the Inflammatory Diseases of Malarious Districts*, illustrates the sedative and antiphlogistic action of the sulphate of quinine in remittent fever, complicated with various local inflammations, in the clearest and most incontestable manner. This physician states: "In almost every case, whatever the nature of the disease, supposing the system at the time to be laboring under the influence of malaria, either as the principal curative agent, or as an important adjuvant, the best effects may be anticipated from its administration. This I have observed under its use in the inflammatory affections of the chest, that an abatement in the physical signs almost invariably *follows*—very rarely precedes an abatement in the febrile excitement, and a diminution in the action of the heart and arteries. Indeed, under its controlling influence over the sanguiferous system, the action of the heart may sometimes be reduced from a state of high excitement, almost to a natural standard long before any abatement takes place in the local inflammatory action as indicated by the physical signs." Cases are then detailed in which meningitis, convulsions, acute

* Author of a *Prize Essay on Malignant Fever* (*Med. Recorder* ix, p. 3); of another on *Cholera Infantum*, which received the prize from Medical and Chirurgical Faculty of Maryland (*Med. Recorder*, x, 153), and another on the "*Diseases Resembling Syphilis from Harvard University* (*Med. Recorder*, x, 428).

† *New Oeleans Medical Journal*, i, 732.

‡ *American Journal of Medical Sciences*, vol. iii, (new series) 1844, p. 87.

bronchitis, pneumonia, dysentery, etc., promptly yielded to the remedy, assisted or not by the lancet and other appropriate treatment. Dr. Boling concludes his article with the following remarks:

"The *peculiar* applicability of the quinine to the treatment of the inflammatory affections of malarial districts, is owing to the combination with its antiphlogistic properties, of a power as an agent in controlling the periodicity of morbid action. As an antiphlogistic remedy in elevated and healthy localities, it will probably never supersede the lancet, antimonials, etc., though it may in many cases be brought to their aid; but in malarious regions ere long it will generally be looked upon as the *safest* and most manageable *contra-stimulant* we possess, and at the same time one sufficiently powerful, while other agents of the same class will only be used to fulfil some casual indication, or as adjuvants to this the principle remedy."

Surgeon Charles McCormick, U. S. Army, has contributed the results of his extensive experience on this subject in the most earnest and positive manner. His whole paper is well worthy of transcribing, but as it is generally accessible and occupies much space, we must be contented with the following extracts:

"I have used the sulphate of quinine in large doses, say from four grains to thirty grains and upwards, constantly for four years. I have nearly always used it simply diffused in cold water as a vehicle. The average dose I usually employ in intermittents is from ten to twenty grains at bedtime, and a similar quantity the following morning, or three or four hours previous to the period of the expected paroxysm. In remittent and continued fevers, from twenty to forty grains is the average dose in which I administer it, to be repeated every twelve to twenty-four hours, or oftener, if necessary, until the fever is arrested."

"I have given it in large doses, under all circumstances, in the prodromic, the cold, the hot and sweating stages of fever, and during the intermissions and remissions; in simple, uncomplicated fever, and in fevers complicated with various local inflammations of the head, chest and abdomen, and have never witnessed any injurious or unpleasant symptoms *when given in large doses.*"

"Given in large doses boldly and freely during the high febrile excitement of idiopathic and arthritic fevers, it will be found to lessen the force of the pulse, diminish the heat and dryness of the skin, relieve restlessness, and throw out on the surface a general, warm and free perspiration; in short, in a few hours, generally from one to three or four, it will cut short the paroxysms and arrest the further progress of the fever; generally acting sensibly on the skin, occasionally on the secretions from the bowels; producing free alvine evacuations; acting also on the kidneys and bladder

by causing a free secretion and discharge of urine; sometimes without any other sensible effect, the fever is seen to subside under the influence of this potent drug. The quantity necessary to produce these effects may vary in different cases; generally a dose of thirty grains will be sufficient. Where venesection is required, let the sulphate be given immediately after.

Stimulants possess the power of exciting, and sedatives that of diminishing the animal energies. Tonics are classed as permanent stimuli. If, then, a remedy may not only be *safely*, but advantageously given to patients laboring under high fever, acute rheumatism and fevers with *various* local inflammations, it surely must be admitted that it does not possess the power of exciting the animal energies, and is not therefore a stimulant or tonic; for, as previously stated, such remedies are altogether inadmissible where the powers of life are in an exalted condition. And as on the other hand it is found to lessen the force of the pulse, heat and dryness of the skin, allay restlessness and to throw out on the surface a general, warm and free perspiration, if given at a time when the powers of life are in an exalted condition; its action more closely resembles that ascribed to the class of *antiphlogistics*. But it possesses other powers than those of antiphlogistic, and to these its apparent action as such is to be attributed. When given in large doses, I have seen it allay *pain, inordinate* muscular action and *restlessness*. In *neuralgia, odontalgia* and acute *rheumatism*, it allays all *pain* as speedily as opium, and it often acts, not only as an *anodyne*, but as a *soporific*."*

The evidence of the distinguished and lamented Drake on any subject of doubtful character from the American student, must command the highest reverence and respect which can be accorded to any author of ancient or modern times. His testimony is especially valuable on this question, since it is the deduction not only of his own careful and numerous observations, but is also the result of personal conversation and consultation with nearly every prominent practitioner in the great valley of the Mississippi river. In his valuable work† he states:

"*The Sulphate of Quinine.*—This medicine cannot be referred to the class of simple diffusive stimulants, such as capsicum or ammonia, which in large doses excite inflammation and fever; nor to that of tonics, as gentian and calumba and the carbonate of iron, for although in *minute* and regularly repeated doses it will, to a certain degree, excite and sustain the actions and energies of the system, these effects are by no means those which characterize it as a therapeutic agent. It has, perhaps, better claims to be admitted in the order of sudorifics, for increase of perspiration generally fol-

* *New Orleans Med. and Surg. Journal* ii, 290–300.

† *Diseases of the Interior Valley of North America*, Second series, pp. 60, 61–106, 110, 125.

lows its administration, if the system and the regimen of the patient be favorable to such an effect. With greater propriety, however, may it be grouped with the *sedative* and *antispasmodic narcotics;* but not with the soporific division, for it does not, like opium, produce sleep. When its operation in *liberal doses* is noticed, it will be observed to diminish the frequency and spasmodic force of the heart's contractions; expand and soften the pulse; increase the functions of the skin, and tranquillise the innervation. Its sinister effects on the brain are vertigo, *tinnitus aurium* and temporary hardness of hearing. The last is analogous to the effect of some other narcotics, as stramonium and belladonna on the pupil of the eye. In generalizing the phenomena which follow its exhibition in considerable portions, we may say that its action is directed more on the great sympathetic and the muscular system of the apparatus of organic life, generally, than upon the functions of animal life—another point of distinction between it and opium. Two opposite conditions of the system contra-indicate its use: 1st. A high degree of phlogistic diathesis with arterial fulness; 2d. Great depression of the vital forces.

Quinine is better borne in congestive remittents and intermittents than in any other form of fever. It is tolerated by the system as tartar emetic is tolerated in pneumonia and blood-letting in cerebral inflammation. I recently gave a negro boy, under twelve years of age, about fifty grains of quinine within twelve hours, without producing deafness or ringing in the ears, Its good effects, however, were none the less evident." "When the pulse, under the use of quinine, gets more feeble as it becomes slower, with a copious supervening sweat, I know of no remedy equal to carbonate of ammonia, the quinine being at the same time suspended."

In addition and in proof of the sedative and febrifuge properties of this invaluable agent, which have been attested by the authorities quoted, and many others,* we have to remark that its antipyretic action has been conclusively established by the *testimony of the thermometer.*† From its liberal employment in a vast number of cases of pneumonia, acute rheuma-

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* Hester.—*New Orleans Med. and Surg. Journal*, ix, 556. Ander on.—*Ibid.*, xi, 78. Mitchell.—*Ibid.*, x, 285. Tuck.—*Ibid.*, v, 719. Shanks.—*Ibid.*, xii, 195. Grier.—*Ibid.*, ix, 432. Brooks.—*Ibid.*, xi, 298. Lewis.—*Ibid.*, iv, 173. Monett.—*Amer. Jour. Med. Sci.*, xiii, 35. M. P. Scott.—*Stethoscope*, Va., 11, 119. Webb.—*Ibid.* 11, 173. Porter.—*Amer. Jour. Med. Sci.*, x, 307. Harney.—*Med. Statis. U. S. Army*, 1839-54, p. 645. De Leon.—*Ibid.*, 673. Bell.—(*Bell & Stokes Practice*) ii, 781. Harris.—*So. Jour. Med. and Surg.*, Charleston, ii, 628. Branch.—*Charleston Med. Jour. and Rev.*, iii, 167. Melier.—*Mem. Roy. Acad. de Med.*, x, 565. See also Briquet.—*Traite du Quinquinia*, 48, for a long list of European authors.

† Bouchut.—*Pathologie, Générale*, 2 me. ed. Paris, 1869, p. 954. Hirtz —(Eulenberg, Briquet, Legroux, Wachsmuth.) *Nouveau Dictionnaire de Médecine et de Chirurg; prat.* Paris, 1862. Tome vi, 189. Jaccoud.—*Pathologie Interne.* Paris, 1870. Tome i, 90. Wunderlich.—*Das Verhalten der Eigenwarme in Krankheiten.* Leipzig, 1870, p. 138.

tism, diphtheria, croup, scarlatina, erysipelas, and the various types and forms of miasmatic fever, the writer has observed the temperature to fall from its maximum to the normal degree and even below that in a few hours. This is a direct effect of the medicine. The idea that its sedative effects are the secondary results of primary excitation is clearly disproven by thermometric observations. The presence of fever, therefore, so far from contra-indicating its use, rationally invites its exhibition in doses increased in direct ratio with the elevation of the morbid temperature. On the other hand, its use in large doses should be avoided in those diseases and conditions in which the internal heat is below the physiological point. We do not wish to be understood as advocating the employment of quinine in all diseases attended with fever, but only in those in which its salutary action has been proven by ample and enlightened experience—the only certain test of the value of therapeutic agents.

Effects in Other Diseases.—We are indebted to M. Briquet for a series of observations in regard to the effects of the sulphate of quinine on the circulation in patients affected with *acute and chronic rheumatism* and *typhoid fever*, with the following results:

Chronic Rheumatism.—(1.) Of thirty patients affected with this disease, in which but few, before the experiment, had any acceleration of the pulse, in six whose pulse was sixty (*one* took seventy-five grains of the salt in twenty-four hours) the pulse was reduced to fifty. In two who took less, the pulse was reduced to fifty-five, and in the rest there was no change, (2.) In seven whose pulse before treatment was between seventy and eighty, on the day *after* treatment, in *two* it was reduced to seventy-two, in two to *sixty-eight*, and in *two* to sixty-two and *sixty*. (3.) In four whose pulse was from eighty to ninety, in *one* it was reduced; in another it was reduced to sixty-four. In two others, the pulse became more frequent. (4.) In two whose pulse was from 110 to 115, it reduced to 96 and 90 pulsations per minute.

Acute Rheumatism.—This category comprised twenty patients, to whom the sulphate of quinine was administered in doses of seventy-five to ninety grains a day, and in whom the pulse averaged before treatment ninety—one-third of them having the pulse at 100 and more, and one-seventh at 60. On the first day the average diminution of the pulse was eighteen and a half pulsations per minute. On the second day the mean decrease was twenty-two. On the third day, the average decrease was twenty-six, and on the fourth day, the mean decrease was twenty-six.

Besides these cases, the remedy was given to others in increased doses with corresponding results.

Typhoid Fever.—In forty-two cases the sulphate of quinine was given in doses varying from forty-five to sixty grains per day, with the following re-

sults;—(1.) The pulse declined soon after the administration in seven patients. (2.) In four mild cases treated with thirty grains a day, the pulse fell from 100 to 80. (3.) In nineteen grave cases, in which thirty to sixty grains were given, and in whom the pulse was at ninety-six on an average, it declined to seventy-eight. (4.) In eleven cases of very grave typhoid fever treated with forty-five to sixty grains a day, and in whom the pulse averaged ninety-eight, it fell to sixty-eight. (5.) In eight cases that died, who had had an average pulse of 104, and who took from forty-five to seventy-five grains a day, it fell on the second day to eighty-two, and on the third and fourth days to seventy-one.

It was observed in the typhoid fever cases, as in those of rheumatism, that the pulse was reduced more in those in which it had been most frequent. It very often happened that the influence on the circulation persisted several days after the cessation of the medicine, and in many cases the patients left the hospital with their pulses below the physiological standard.

Effects on the Blood.—Although we have seen it stated by M. Melier, as the result of a few experiments, that the sulphate of quinine has a tendency to liquify and diminish the coagulability of the blood, yet this conclusion has not been verified by the more extended observations of M. Briquet, who subjected the blood of patients and dogs to chemical analysis, who had been subjected to the influence of quinine in large doses. As the result of his experiments and observations, the author arrives at the following conclusions:—

1st. That the proportion of fibrine was always *increased* after the administration of large doses of quinine, and diminished after its discontinuance.

2d. That the relative proportion of blood globules was diminished, a fact which he did not attribute exclusively to the salt. The diminution amounted to one-sixth and one-fourth.

3d. The quantity of the serum of the blood was slightly increased.

4th. That the administration of quinine or its salts has no appreciable influence on the salts of the blood.

Mode of Absorption and Elimination.—From the experiments of MM. Henry, Lannaux, Follin, Landerer and Wöhler, it has been ascertained perfectly that the sulphate of quinine is rapidly absorbed into the blood. M. Landerer* has shown that after the administration of quinine, it is found in the blood and excrement. He found it in the liquid urine and also in the yellowish red sediments, which consisted of phosphate and urate of lime and carbonate of ammonia. He also examined the blood of patients suffering from intermittent fever, and who had been bled on account of inflammatory complications. The serum of the blood had a decided bitter

* *Chem. Gaz.*, i, 47, quoted in *So. Jour. Med. and Phar.*, i, 461.

taste, and when evaporated and the residue digested with acidulated water, the extract afforded quinine on being precipitated with ammonia.

M. Henry* found quinine abundantly in the urine of dogs submitted to experiment, and also in the liver. M. Briquet has corroborated these statements in the most conclusive manner.

The rapidity with which quinine is absorbed is very great. M. Briquet detected it in the urine in a space of time varying from half an hour to an hour after its injection, and there is no doubt but this agent is principally eliminated by the kidneys. The rapidity of absorption is less in febrile diseases, and this fact leads to a therapeutic indication, viz., that the salt should be administered at a period sufficiently long before the expected paroxysm, to insure its full constitutional effects.

Toxicological Effects.—When we consider to what a vast extent the sulphate of quinine is employed, and by how many unprofessional as well as unskillful persons it is administered, it is a matter of astonishment that comparatively so few serious results have been related. No stronger proof could be given, however, of the fact that it possesses less hurtful or dangerous properties than at one time were attributed to it. No authentic case within our own observation has occurred of dangerous—much less fatal effects having been produced by it when given to man in health. We have seen that M. Bailly took himself 100 grains without injury, and that M. Giacomini also took very large doses for several days without producing any serious permanent effects. The following case is an instructive and interesting example of its pernicious effects when taken in health in excessive quantity.

"A man from 45 to 50 years of age having taken at a single dose about 200 grains of sulphate of quinine by mistake for cream of tartar, was first seized with cardialgia, nausea, faintness, and entire inability to move. Eight hours after having swallowed it, Dr. Giacometti, of Mantua, who communicated this observation to Professor Giacomini, was called to the patient, whom he found in the following state:—The temperature of the body was below the normal standard; his extremities cold; his lips and fingers livid, and his breath fœtid. His respiration was slow and gasping; the pulse regular, but so feeble as to be hardly perceptible; his voice inaudible; the pupil extremely dilated, and his hearing and sight almost extinct. His tongue was not dry, but pale, and covered with thick and viscid mucus, and the patient was thirsty. After taking a stimulant potion, containing about thirty drops of laudanum, and friction having been made over the whole body, he became warm; the pulse became more perceptible; his respiration less slow, and his countenance more animated. The patient experiencing colicky pains and flatulence, an enema was given,

* *Mem. de l'Acad. Roy. de Med.*, x, 739.

which produced evacuations that relieved them. Soon his appetite returned, and on the fourth day treatment was discontinued. On the fifth day, the patient could sit up for an half hour, but he could not stand on his feet, so great was his prostration. The feebleness of hearing and seeing although diminishing every day, did not cease completely for a long time. Finally the patient of Dr. Giacometti recovered."*

The following extraordinary cases are also found in M. Guersant's article (same volume and page): "M. Bazire, a physician at Martainville, on the Upper-Seine, possessing an ardent and excitable imagination, had an unlimited confidence in the power of the sulphate of quinine, which he frequently employed in the intermittent fevers which reigned in the vicinity. He was strongly convinced that if this remedy sometimes failed, it was on account of its being employed in insufficient doses. Such was the conviction of the mind of our *confrère*, when his wife was attacked with an intermittent, which he thought sufficiently grave to demand energetic treatment. In consequence, he gave her 240 grains of sulphate of quinine in a very short space of time. The patient soon fell into a state of stupor with heaviness of the head, amaurosis, deafness and difficulty in moving. M. Bazire, persuaded that these new symptoms were owing to an approaching invasion of another paroxysm, gave, in addition, 375 grains of sulphate of quinine to his wife. After the ingestion of this enormous dose, the symptoms increased with fearful rapidity. The patient became entirely deaf and blind, her respiration was embarrassed, her pulse very bad and her skin cold. It was necessary to have recourse to powerful revulsives, but the patient remained in a stationary condition for several days. Whilst this deplorable scene was passing, our unhappy *confrère* was in a state of great fatigue from attending a great number of cases of intermittent fever, which was epidemic. The reverses which he experienced threw him into despair; he saw, with affright, the disease triumphant and the power of the medicine which he believed infallible, too often inefficacious. However, by a singular fatality, even these failures, only increased his delusion in regard to the sulphate of quinine. To complete his misfortunes, he was soon attacked, himself, with intermittent fever, which gave the last stroke to his delirious imagination. He believed his disease to be of a pernicious type, and desired, in consequence, to double the dose, persuaded that he would surely triumph over the malady. He hastened, then, to administer to himself 900 grains of the sulphate of quinine by the mouth and by the rectum. The same symptoms which had been observed in his wife were manifested in him. He immediately lost his hearing and sight; his respiration became frequent, quick and similar to that of a man affected with pneumonia terminating in hepatization. His pulse was small, irregular,

* *Dict. de Médicine*, or *Repert. Genl.*, xxvi, 568 (Guersant).

and his limbs cold. In spite of this assemblage of formidable symptoms, and contrary to the advice of his *confrères*, the unhappy Bazire, the victim of a species of monomania, took, in addition, in the space of eight or nine days, five ounces of sulphate of quinine. M. Réveillon was then summoned. He found him covered with a cold sweat, completely deaf and blind; his respiration was difficult and rattling; he was in profound stupor, and his countenance resembled that of a drunken man. When one succeeded, with great difficulty, in making him hear, his answers were correct; but soon delirium supervened, his respiration became more and more embarrassed, and M. Bazire expired. M. Réveillon was not permitted to make an autopsy. Madame Bazire only owed her life to the decease of her husband, which prevented him from attending her further; but her convalescence was extremely long; she remained for a long time deaf and blind—and even at present her vision and hearing are extremely feeble."

M. Recamier * has reported a case of death after the administration of sulphate of quinine in a case of acute articular rheumatism. This patient had been shortly before treated for small-pox, and there was "derangement of intelligence" before the medicine was given, and the patient labored under "general fever." M. Recamier having just witnessed an admirable cure effected in an analagous manner in a lady in private practice, resolved to employ the same treatment in this case. On the first day forty-six-and-a-half grains were administered in twelve papers; one to be given every hour. No bad effect resulted. The second day seventy-seven grains of sulphate of quinine were prescribed, to be taken in the same manner. The patient had only taken fifty grains, when he was suddenly attacked with extreme agitation, followed by furious delirium, and death occurred in a few hours. No certain deduction can be made from the result of this case as to the share which the sulphate of quinine had in the unfavorable issue. The derangement of intelligence mentioned, *before the period of the administration of quinine*, was very probably the result of incipient meningitis—delirium of a "furious" character not being of the effects of quinine, as we have seen above. We consider "the admirable cure" at once an offset to, and a practical commentary on the unfortunate case.

M. Petit Jean, † another French physician, states that he has "frequently observed the influence possessed by the sulphate of quinine in procuring abortion in the part of the country where intermittent fevers were frequent. He, as well as others, observed that the salts of quinine in the dose of fifteen grains a day in many instances caused abortion."

From the results of an experience of forty years in the treatment of malarious fevers, we are confident that M. Petit Jean has mistaken a con-

* *Amer. Jour. Med. Sci.* V, 494, from *Gazette des Hopitaux*, 1842.
† *South. Jour. Med. & Phar.* I, 191, from *Chemist*, December 1845, p. 544.

sequence of the intermittent fever for a result of the action of quinine. At the commencement of our career, when we were timid in administering quinine, abortion was no uncommon occurrence in pregnant women attacked with the various types of periodical fever, and to whom no quinine had been given. It is a frequent occurrence in fevers of all descriptions, and the female may consider herself fortunate in passing through the commotion of any fever without a premature expulsion of the fœtus. Since we commenced to employ quinine in liberal, yet reasonable, doses in paroxysmal fevers, we have *never* observed abortion in patients affected with them. We should reasonably suppose that an agent which, when properly administered, would prevent the convulsive rigors of the cold stage, and the high febrile excitement of the exacerbation which follows would be the best means of preventing abortion in those subject to such violent disturbing influences—a hypothesis which extensive observation has fully confirmed.

The opponents of the use of sulphate of quinine in proper doses will derive but little assistance for the support of their views from the perusal of the paper of M. Melier, * "*Sur les Propriétiés Toxiques du Sulfate de quinine.*" The cases cited were those in which no judicious practitioner would have erred, three of them being those already quoted from M. Guersant's article, in which the sulphate was given in doses of from 180 grains to five ounces. M. Melier, himself, states in another paper, † in the same volume, that he cured an infant *six weeks* old, affected with convulsions, by giving six grains of the sulphate of quinine on the first day, four the next and the same quantity on the day succeeding. These, according to our estimate, would be equivalent to doses of fifty to sixty grains in an adult, if not more. So that we are not surprised that M. Melier should refer to this last paper in his observations, "*Sur les Propriétés Toxiques,*" declaring "On ne me suspectera pas, je pense de vouloir diminuer la confiance que l'on *doit avoir* dans le sulfate de quinine *l'agent le plus précieux, à mon avis, dont se soit jamais enrichie la therapeutique.*"

It is astonishing to find that the sulphate of quinine, however, has been given in enormous doses without producing any serious effects. Drake informs us that "Dr. Fair of Montgomery, Ala., told him of a patient who took an ounce in three days and recovered, and Dr. Heriart, of Plaquemine, La., knew of an old lady who took ten-grain doses every two hours, till an ounce was swallowed. No bad effects occurred, and she recovered. ‡

The following case, related by Maillot, § in which very large doses were given with the happiest effects, is interesting and instructive:

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* "*Mem. de la Roy. Acad. de Med.*, X, 722."
† "*Des Affections Intermittentes a Courte Période*," *op. cit.*, p. 555.
‡ *Dis. Int. Valley of N. America*, 2nd Series, 91.
§ *Traité dis Fièvres Intermittentes*, 397.

"*Fièvre quotidienne pernicieuse, comateuse.*—Muller, a soldier of the Third Regiment of Chasseurs, of a good, strong constitution, had been discharged from my service about a month when he again came under my care, on the 15th of January, 1835, in the afternoon. He was in the most profound coma. We could gain no information in regard to the commencement of his disease; his pulse was full, large, but not hard; the skin but little elevated above the natural temperature; the respiration deep. His countenance resembled that of a man asleep, and he was altogether insensible to pinching and pulling his skin. (Diet, lemonade; venesection fifteen ounces, thirty leeches over the track of the jugulars; a quart of amylaceous opiated enema with sixty grains of sulphate of quinine, and forty grains of sulphate of quinine given by the mouth, two blisters to the thighs and two sinapisms to the legs.) At 8 o'clock in the evening, the coma was very profound; the insensibility, however, was less perfect, and his skin was warmer; bleeding from the temporal artery eight to ten ounces; forty grains of sulphate of quinine to be taken in two doses in the space of two hours; cold fomentations to the head. *January* 16, morning: The tongue is slightly indicative of gastritis, but the epigastrium is painful on pressure. The expression of the face continues somewhat stupid; the mind is, however, clear; he has had an abundant sweat during the night. The patient related to us that before his return to the hospital, he had had five paroxysms of fever, which returned every day at 3 o'clock in the morning. It was during the fifth access that he was brought back to the hospital. The first paroxysms were accompanied by violent pains in the head and efforts to vomit. Diet, lemonade; forty grains of quinine to be taken immediately in one dose, cataplasms to the epigastrium, continue cold applications to the head. Complete intermission of fever took place during the day, and in the evening the patient was in the most comfortable condition. *January* 17, morning: Apyrexia complete, no cephalalgia or thirst, epigastric pain increased, no lassitude in his limbs, no alvine discharge for several days. (Diet, lemonade; twenty-four grains of sulphate of quinine in an emollient lavement.) *January* 18: Convalescence. The 27th, the patient took half-diet, but he gradually resumed his usual diet. In the early part of February he had a relapse, which retarded his cure, but this was soon relieved."

M. Maillot concludes his description of this case as follows: "One hundred and eighty grains of sulphate of quinine here were administered in a few hours. One will search in vain amongst authors for examples of such medication. I leave to experience the charge of deciding upon its value. It is only by facts that questions of this nature ought to be decided. Theories are broken to pieces by facts which convince us in spite of ourselves."

I have myself witnessed similar examples to that related by Maillot; I have seen 240 grains given to a patient in twenty-four hours, who, at the commencement of its administration, had high fever, was in a state of comatose delirium, and who had every symptom of congestion and irritation of the brain; his eyes were injected and the temporal artery so distended with blood, that its branches could be easily seen at a distance from the patient. Before one-half of the medicine was given, every symptom of fever and cerebral disturbance had disappeared, and rapid convalescence ensued. His vision was not affected by the quinine, but for several days his hearing was impaired. This partial deafness, however, entirely disappeared before a week expired. Ten years afterwards he was in good health, when I lost sight of him. A few hours before the administration of the quinine, the patient was bled sixteen ounces from the temporal artery and cupped freely over the mastoid region, with partial relief of the head-symptoms.

Dr. T. J. Mitchell* relates a case in which his son, Dr. B. Rush Mitchell, gave 240 grains of sulphate of quinine in four hours with no development of bad symptoms, and followed by complete restoration to health.

Dr. F. A. Bates† states: "I have frequently given 100 grains of sulphate of quinine in a few hours, without any other complaint than a little ringing in the ears."

Dr. Ames‡ states that he recently gave to a negro boy under twelve years of age, about fifty grains of sulphate of quinine within twelve hours, without producing any deafness or ringing in the ears. Its good effects were, however, none the less evident.

Dr. R. D. Webb§ observes "that though raised in a country stigmatized as the hot-bed of malaria, and resided two years in a Southern hospital where quinine was given freely, he had never observed any of the deleterious effects attributed to it;" and adds, "I knew a case occurring in the practice of Dr. Smith, of Alabama, in which half an ounce was taken in a single day without any unpleasant consequences."

Dr. R. G. Wharton,‖ of Grand Gulf, Miss., in an article on congestive fever, says that he gave half an ounce of sulphate of quinine in a bad case of that disease with perfect success, and that there was no deafness or headache following."

Our object in citing these examples, which might be greatly multiplied, did space permit, is merely to show in what enormous quantities the drug

* *N. O. Medical Journal*, III, 20.
† *New Orleans Med. Journal*, vi, 187.
‡ Lewis' *Med. Hist.* of Ala., *N. O. Med. Jour* , iv, 173.
§ *Stethoscope*, Va., ii, 176.
‖ *Amer. Jour. Med. Sciences*, vii, 343.

may be taken without producing serious consequences. As we shall see hereafter, we do not approve the practice of giving such excessive doses.

In the fatal examples there is a remarkable agreement in the account of various authors in regard to the symptoms produced by quinine, viz., deafness, blindness, insensibility, failure of the pulse and coldness of the skin—all the results of the depressing and other peculiar powers of the medicine. Let us now examine the symptoms clearly the result of the pernicious action of the sulphate of quinine, and endeavor to ascertain in what manner they are produced.

Tinnitus Aurium and Deafness.—These symptoms are usually attributed to congestion of the brain. I do not think so. We have seen that the most potent remedy for relieving congestion of the brain, both of an active and passive character, has been found in the salt itself. If it possessed the property of unduly exciting or unduly determining the blood to that organ, we should have witnessed accidents of that kind without number. It is therefore evidently a peculiar and specific effect of the medicine, only *hurtful* and *permanent* when induced by excessive doses.

Tinnitus aurium is often induced by the smallest dose of the medicine, and usually ceases promptly after the withdrawal of the remedy. It is an unpleasant and annoying symptom to the patient, and constitutes usually the greatest objection with the patient to its reception. A few instances of permanent deafness have been recorded. In my prolonged experience I have never observed it, but as it may be produced by the sulphate of quinine when given in too large quantities, it certainly in itself alone is a great objection to its use in inordinate doses. Blindness has been very rarely observed, either as a temporary or permanent effect of the sulphate of quinine. I have never known a single instance in my personal experience. It has never, I believe, been the effect of any reasonable dose of the medicine. It is evidently the result of paralysis of the optic centre, as deafness is of the same condition of the auditory centre.

Conclusions in Regard to the Physiological Action of Sulphate of Quinine. 1st. It is incontestible that slight and transient perturbation of the nervous system and circulation are observed soon after the ingestion of the sulphate of quinine when given in small and repeated doses. This, however, is not always observed. This temporary effect has led to its classification by writers on the Materia Medica and Therapeutics among tonics and stimulants. It is probably due to its local action upon the mucous membrane of the stomach. The sulphate of quinine, like all other substances which are absorbed into the blood,, has necessarily to undergo the process of absorption. The presence of any ingesta in the stomach excites the functions of that organ in more or less degree. The chemical and vital processes of digestion being called into play, excite the functions of the brain and

stimulate contractions of the heart by reflex action. To the healthy stomach, quinine cannot be considered as possessing the properties of an irritant, except in a slight degree; when however the mucous membrane of that organ is inflamed, experience amply proves that its local action upon it is that of an *irritant*. It is probable that the irritant effects of the sulphate upon the stomachs of some persons, apparently enjoying health, is due to a susceptibility dependent upon a condition of the mucous membrane not strictly physiological.

2d. The sulphate of quinine, in large doses or in small doses, frequently repeated after the temporary stage of perturbation above described, exerts a calming and sedative action upon the nervous system and circulation. This has been clearly shown from the facts we have arrayed. 1st. From experiments on animals. 2d. From its effects on man in health; and 3d. From its effects in diseased conditions of the animal economy. The quantity necessary to produce sedation is variable, according to the age or susceptibility of the subject.

3d. Given in *excessive* doses, it reduces the actions of the nervous and circulating systems far below the physiological state, and in sufficient quanties, it paralyses in a great or less degree the action of the heart, the cerebro-spinal and ganglionic nervous systems, and in rare cases may produce death.

4th. In large doses, the sulphate of quinine produces sleep and relieves pain.

5th. In large doses, the sulphate of quinine exerts a marked effect on the calorifacient function, reducing the temperature of the body in health and disease.

These conclusions are not only sustained by the facts already given, but will be still clearer demonstrated when we shall treat of its application in the treatment of particular diseases.

An agent possessing the properties above enumerated must necessarily possess a wide range in its application to the cure of disease, but in the present condition of pathological science, the propriety of the administration of any article can only be determined by numerous and repeated experiments. The essential nature of many diseases remains to be discovered, and probably will forever be enshrouded in mystery. No theory of disease yet promulgated, and no classification yet made of medicinal agents, has lead to any positively definite system of therapeutics, and the applicability of remedies to the treatment of disease can only be positively ascertained and determined by experience.

On the Therapeutic Use of Sulphate of Quinine.—The curative effects of the sulphate of quinine in *simple ague* are so well known and appreciated, that it will be unnecessary to devote much space to its consideration. No

agent yet discovered has been found so certain in its effects. Given in small and repeated doses in the intermission, or in large doses, a few hours before the expected access, it arrests the disease promptly and surely. In many thousand cases I have never seen it fail when given in proper quantity. I trust that the examples which we have given of its use in enormous doses, not having been followed by serious or permanent ill-effect, will tend to diminish all hesitation in employing this remedy in sufficient doses. Thirty-five grains of pure sulphate of quinine will arrest the paroxysms of intermittent with a degree of certainty to be found in the history of no other remedy. I do not remember a single example of its failure to prevent the recurrence of the cold stage, when given in that quantity, except where it had been administered too late to undergo absorption and to produce its full effect.

In simple intermittent, I prefer to give that quantity in divided doses. It is tolerated with more ease by the stomach, and produces its salutary effects with less discomfort to the patient. When the intermission, however, is very short, it may be given in full quantity at once. Should it produce any unpleasant effects, they are not to be compared in severity to the agony of a febrile paroxysm. After the paroxysms are arrested, its use should be continued in divided doses, gradually lessened in quantity, for two or three weeks. The relapses of intermittents, which so frequently occur, may thus be generally prevented.

The prophylactic powers of the sulphate of quinine are generally conceded. Numerous experiments have established the capacity of the article beyond the reach of cavil.

The salutary effects of quinine may be essentially assisted by other therapeutic measures. The advantage of previous evacuation of the alimentary canal is generally recognized. By this means all offending is matter removed and the absorption of the salt facilitated. When, however, the intermission is very brief, or the practitioner is called too late, the remedy should be administered without delay.

In Remittent Fever.—The employment of the sulphate of quinine in remittent fever has been the subject of much controversy, but has gradually become more general since its sedative powers have been more fully recognized. As a proof of its efficacy and safety, we may merely state that it is almost universally employed in this disease by those who have had most frequent opportunities of observing it in its most violent and malignant forms.

In the ordinary form of remittent fever, I have adopted the following practice during the last forty years with *invariable success* in several thousand cases.

Active measure will be found usually unnecessary during the chill, as

the vital powers are fully competent to produce reaction. I disapprove the method of torturing the patient with heavy bed-clothes and hot applications, but consult his feelings in regard to them, and allow cool drinks in moderate quantity.

In the exacerbation, if the pulse is hard or full and resisting, especially if attended with intense cerebral or spinal pain, a moderate bleeding from the arm will produce generally great relief, *but this will be very rarely necessary* in the present adynamic medical constitution. Local bleeding will usually be found sufficient, and is an invaluable adjunct. Leeches to the temple, or cups to the occipital or spinal regions may be freely applied, as the determination may indicate. If nausea and vomiting or other symptoms of gastric irritation be present, leeches or cups to the epigastrium will be followed by great relief; and if these means should be succeeded by a simple enema, under their conjoined action the bowels will gently respond, and add greatly to the comfort of the patient. Cold drinks, ice, the effervescing draught and lemonade may be freely allowed. Under this treatment, the patient will find great alleviation from suffering, and the intensity of the fever will be usually diminished. At bed-time—say at nine or ten o'clock at night—it is almost our invariable rule to administer a cathartic dose of calomel and rhubarb, composed of ten or twelve grains of each. At some period before or after midnight, the fever will generally be found more or less to decline. We prefer this period for the administration of the principal remedy because our experience teaches us that it is then better borne and produces its salutary effects in a more decided and complete manner than at any other time. We, however, whether the fever has declined or not, then administer fifteen to twenty grains of the sulphate of quinine in a single dose in pills, in a gelatine capsule, or diffused in a wine-glassful of cold water. We regulate the dose by the degree of fever present. If it is intense, we administer the large quantity; if very moderate, less will answer. Under the combined action of the cathartic and quinine, free evacuation of the bowels will usually occur, but rarely excessive. Three or four hours are now suffered to elapse, during which the topical bleeding is repeated if the local symptoms do not yield. The condition of the patient will now be found generally much improved. The cerebro-spinal pain is either removed or mitigated, the pulse less frequent and more soft, the skin relaxed and moist, and the gastric irritation subdued. We therefore repeat the quinine in diminished doses of five or six grains every three or four hours, until the period of chill has passed, generally exhibiting altogether from thirty-five to forty grains before that time. In cases attended with much gastric irritation or diarrhœa, the addition of a full dose of opium—say one and a half or two grains with ten or twelve grains of the submuriate of mercury at bed-time, instead of the

rhubarb; this forms an excellent combination, which will enable the stomach to retain the quinine with more certainty. If the stomach should not tolerate it, however, it must be given by the rectum or skin.

Under this simple plan of treatment, remittent fever as it usually appears is cetainly and safely arrested. Owing, however, to the peculiar liability of the affection to relapse, or terminate in protracted intermittent fever, we usually continue treatment. We think it advisable to prescribe calomel or blue mass for two or three successive nights in aperient doses, followed by eight or ten grains of quinine on the succeeding mornings. In cases attended with coma, delirium or convulsions during the exacerbation, topical bleeding will be freely required and the application of ice or cold fomentations to the head. We have, however, been more gratified with the effects of the *cold douche* in these applications than with any other remedy. A full dose of calomel should be given as soon as practicable, followed by a stimulating enema. In mild cases, however, it will not be necessary to resort to very active treatment, as these symptoms gradually yield with the subsidence of the paroxysm.

In the *algid form*, of intermittent and remittent fevers, the following treatment is recommended.

In the Cold Stage, external means are all important. Warm applications are to be assiduously made to the parts reduced in temperature, together with stimulating frictions. These should be freely applied to the whole length of the spinal column and extremities. A large blister should be placed over the epigastric region, and if the head is affected, another should be applied to the nape of the neck. To produce reaction along with these applications, I prefer enemata of the sulphate of quinine. Ten grains may be thrown up the rectum every half hour until reaction ensues. If diarrhœa is present, laudanum should be added to the enema. If this is not retained, the hypodermic injection must be resorted to. By these means, cases apparently hopeless have been rescued from death.

During the *exacerbation* the reaction is sometimes intense. When this occurs, I have ventured on the abstraction of blood from the arm in moderate quantity with decided benefit, but this is seldom necessary. The case now requires only to be treated as the ordinary form, save with perhaps a more liberal use of quiniue. A moderate dose of calomel (ten or fifteen grains) alone or combined with one or two grains of opium, if there is much gastric irritation or diarrhœa, is followed in two or three hours by a full dose of quinine, say twenty grains, and repeated in doses of five to ten grains every three or four hours until thirty-five or forty grains are taken. The medicine should be so given that the last dose may be taken two or three hours before the expected paroxysm. I have never seen a chill or cold stage recur after forty grains of Farr's (or Powers & Weightman's)

sulphate of quinine had been exhibited in sufficient time for its effects to be fully induced. Although the patient may be generally considered beyond danger, when the paroxysms have been arrested, yet I esteem it to be good practice to prevent relapse, by placing the patient on a gentle alterative course, and to repeat the quinine in diminished quantity for several weeks thereafter.

Quinine is often defeated in its action by the presence of gastric irritation and inflammation. In such cases it may be given by the rectum. When the intestiual mucous membrane is also in a state of phlogosis, the remedy may be employed hypodermically. Its effects, when administered in this manner, are prompt and decided.* Besides, in the algid form, the sulphate of quinine has been found no less indispensable and valuable in the other varieties termed *proteiform* by Morton,† and *pernicious* by Torti,‡ and described by Werlhoff,§ Burserius,|| Senac,¶ Cleghorn,** Chomel,†† Bailly,‡‡ Maillot,§§ Gihtrac,|||| and others in Europe and many writers in our own country. To the illustrious Torti we are perhaps indebted more than any other author for a knowledge of the value of cinchona in those fatal varieties of malarial disease. Under the heads of *cholerica, dysenterica, subcruenta, atribilaris, cardiaca, diaphoretica, syncopalis, algida, subcontinua, malignans, legarthica*, etc., he described those fatal manifestations of the action of the same morbific agency, in which the wonderful powers of the bark were clearly and fully demonstrated. To these varieties or forms many others have been added by subsequent writers. The different modifications of treatment in these various local expressions of the same morbific cause, it would be impossible to detail within the limits of an essay. It is sufficient to add that the transition from the employment of the bark to the substitution of quinine, was a *natural* and *inevitable change* in the *practice* of those who had wisely followed the admonitions of the illustrious Italian physician. At present there is but little contrariety in the practice of enlightened practitioners in regard to the employment of quinine in the *most malignant* and *rapidly fatal varieties*, of malarial disease.

* The following is the excellent formula of M. Dodeuil for its hypodermic use :

Distilled water	20 parts.
Sulphate of quinine	2 parts.
Tartaric acid	1 part.

One-third less than the usual dose of quinine is required when given by the skin.

† *Opera Medica* (De Proteiformi Int. febris), Lugduni, 1737.

‡ *Therapeutice Specialis ad Febres Perniciosas*, ii, 1, Leodü, 1821.

§ *Opera Medica*, Hanoveræ, 1775.

|| *The Institutes of the Practice of Medicine*, Translated by Wm. Cullen Brown, Edinburg, 1800.

¶ *De Recondita Febr. Int. tum Remit. naturæ*, Amstelodami, 1759.

** *Observations on the Epidemical Diseases of Minorca*, London, 1768.

†† *Des Fièvres et des maladies pestilentielles*, Paris. 1821.

‡‡ *Op. Cit.*

§§ *Op. Cit.*

|||| *Pathologie Interne*, Paris, 1853, iii, 770.

However writers may wrangle about the proper methods of treatment in other forms, yet in Pernicious Fever they *unanimously* accord to it the most exalted virtues. Yet in these forms there is often *no remission* of the fever or other symptoms until death claims its victim. Though here we perceive the deepest implication of *vital organs;* indisputable evidences of congestion and inflammation of the brain, spinal marrow, lungs, stomach, bowels, liver and spleen; indeed, though "the life of all the blood be touched corruptibly," yet by the *bedside*, in the stern presence of impending death, they waive their strife, they forget or ignore their speculations in regard to this agent *exciting inflammation, increasing congestion* and *liquefying* the *blood* and *boldly* give a remedy which they have *denounced* for having produced the very evils, in *milder* forms of the same disease, which they *implore* it to *avert*, when present in *aggravated degree*. Verily we may say with Maillot, "Les theories se briseront contre les accidens qui nous entraînaient malgré nous."

We conclude our observations on the employment of the sulphate of quinine in periodical fever, with the following suggestions:

1. As the chief danger in this class of diseases is to be apprehended from the recurrence of the paroxysms; and as experience has proven that quinine may be safely given at any stage of the disease, it is our duty to arrest the disease as soon as practicable by its immediate administration.

2. The sedative and febrifuge effects of the medicine may be assisted by other remedies which have proven to be efficacious. Thus intense febrile heat may be moderated and inflammation may be combated by such methods of treatment as may be found applicable. The action of quinine is by no means disturbed by the remedies of inflammation, such as bleeding, veratrum, tartar emetic, mercury, etc.; on the contrary, it is aided by them in the production of its salutary effects. Where the impression of mercury is desired, the sulphate of quinine is a powerful promoter of its development.

3. When given in the presence of fever, it should be administered in such quantities as to produce decided sedative action, and to prevent the next exacerbation with certainty. I regard fifteen grains of the medicine as the minimum certain sedative dose for an adult, to be repeated as occasion may require.

4. Bearing in mind the sedative and depressing effect of the remedy in large doses, its use is contra-indicated in those conditions of the organism in which the powers of life are already below the physiological standard. In these states, the sulphate should be given in small doses.

In Neuralgia.—In illustrating the effects of sulphate of quinine in disease, its therapeutic use in neuralgia was necessarily noticed in cases when it evidently arose from the same cause as that producing periodical fever; but there is every reason to believe that it has been found as equally use-

ful in cases of neuralgia which could not be traced to any miasmatic source, and assuming either a periodical or continuous type.

In *neuralgia* of the nerves of the *ganglionic system*, the paroxysms are usually *less regular* and *distinctly periodical* than those of the *cerebro-spinal system*. This is due, in the opinion of M. Jolly,* to the fact that the ganglionic nerves are distributed to organs whose functions are of a more continuous character, and if the lungs, stomach, etc., exhibit periodicity more evidently, it ought to be attributed to the fact that these organs are partly under the cerebro-spinal influence.†

The march of ganglionic neuralgias also, according to M. Jolly, is different from that of those of the cerebro-spinal system. The latter manifest themselves chiefly in the afternoon or night, and cease at the approach of day. Ganglionic neuralgias usually commence in the *morning* or after *midnight*. Interesting examples of various forms and types of neuralgia which yielded promptly to the action of cinchona and its salts may be found in the works of various writers, to which reference may be found below.‡

In Yellow Fever.—As by many practitioners the bark was employed and recommended in the cure of yellow fever, the administration of the sulphate of quinine succeeded as a natural sequence. The different opinions in regard to its effects would seem to indicate that in some epidemics the medicine has proven highly efficacious, whilst in others it has been found injurious or nugatory.

According to Dr. Drake, Dr. Dodd "may be justly regarded as the first to establish the safety of this practice" in this country.§

In the epidemic at New Orleans, in 1839, Dr. Mackie instituted experiments with it with the most decided salutary results. Dr. Harrison speaks enthusiastically in favor of its effects in the yellow fever of that year in that city, and states "the fever, in most cases, was cut short as if by enchantment,‖ and its employment has also been highly lauded in other epidemics by Drs. Cummins,¶ Batcheler,¶ W. H. Andersons, Shanks,¶

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* *Dict. de Méd. et de Chirurg.*, xii, 19.

† The writer takes pleasure in referring the student to the admirable essays on this and kindred subjects by our countryman, Dr. H. F. Campbell, of Georgia, in the *Transactions of the Amer. Med. Association*, and especially to his prize essay on the "Excito-Secretory System of Nerves," vol. x, p. 465.

‡ Morton.—*Opera Medica*, obs. xxvii. Senac.—*Op. cit.*, 136. Van Swieten.—*Comment. on Boerhave*, vii, 218, 219. Sauvages.—*Nosologie*, i, 461. Senac.—*Op. cit.*, 75, 78. Chomel.—*Des Fièvres*, 412, 413. Mongellaz.—*Monographie des Irritations Intermittentes*, 207-18. Bonnet.—*Fièvres Intermittentes*, 137-9-44. MacCulloch.—ii, 169. Holland.—*Med. Notes and Reflections*, 241-46. Drake.—*Diseases Int. Valley N. America*, 2d series, 182-3.

§ *Dis. Int. Valley N. A.*, 338.

‖ *N. O. Med. and Surg. Journal*, ii, 332, 1845.

¶ *N. O. Med. and Surg. Journal*, x, 352. *Ibid.*, x, 404. *Ibid.*, xi, 86. *Ibid.*, xii, 705.

Stone,* and others.† On the other hand, in other localities, the treatment of yellow fever by quinine has signally failed in arresting the disease or diminishing its mortaility. According to the testimony of Dr. Lewis,‡ it signally failed in every form of yellow fever in Mobile. Of this treatment in an epidemic of this same disease in the same city, except "in a few intermittent cases, which are seen in every epidemic," Dr. Nott§ remarks that it was utterly useless. In the terrible epidemic which raged at Norfolk and Portsmouth, Va., I believe that it is generally conceded that the quinine practice, like every other mode of treatment, was found ineffectual.

We, perhaps, ought not to close our observations on the employment of quinine in this disease, without quoting the following from Drake,‖ who had the advantage of personal consultation with the most eminent and successful practitioners in regions where yellow fever is habitually endemic:

"It is undeniable that the quinine has proved beneficial in the practice of a number of our physicians; but can it be regarded as a specific even in the modified sense in which it is a specific in autumnal intermittent fever? I think not; for in the hands of several physicians it has not produced any decided benefit, and all who have used it extensively, have seen patients die with black vomit after their systems had been thoroughly brought under its influence. Indeed, of its value in yellow fever, unmodified by any autumnal intermixture, we have not any satisfactory proof. Nevertheless, so many epidemics present a mixed character, that even limited to them, its importance is very considerable. When no alliance of this kind exists, I am disposed to believe that it may shorten the stage of excitement, if exhibited in large doses immediately after copious depletion. Its narcotico-sedative effects on the nervous system of animal life, and the *centrifugal determination* of the *blood*, which it favors, as is shown by the *diaphoresis* which follows its exhibition, are well-fitted to extinguish the morbid excitement. But in pure yellow fever, is this the subdual of the disease? It would seem not; for after the patient has lain for two or three days under its influence, in what Dr. Lewis calls the 'state of calm,' collapse, black vomit and death may happen. There is, then, an insidious lesion of the system which it does not reach—a root of malignity which it cannot eradicate. In the treatment of the most dangerous intermittents—either inflammatory or congestive—it does not display this impotence; for after its impress on the system is established, no ulterior fatal symptoms need be apprehended. The *third stage* of *yellow fever* is *not*, in fact, the same pathological condition with the *apyrexia* of an *intermittent*. It ends

* *Va. Med. Journal*, v, 481.
† See Drake, *op. cit.*, 338, 342, and Briquet, *op. cit.*, 442.
‡ *N. O. Med. Journal*, i, 427.
§ *Charleston Med. Jour. and Rev.*, iii, 16.
‖ *Op. Cit.*, 341, 342.

in health or collapse and death, while the apyrexia of the intermittent never terminate in health or death, but in a new paroxysm. We should not, then, be surprised at a difference in effect of the sulphate of quinine in the two cases; nor at the small degree of success which has as yet followed the efforts to ward off the collapse of yellow fever by treating its third stage with the quinine."

In Typhoid Fever.—To the physicians of the present generation, engaged in practice forty years ago, typhoid fever was almost a new disease, and as at that period the free employment of quinine in the various forms of periodical fever was attended with the most beneficial results, numerous trials were soon made with it in the first mentioned disease.

Residing in a region in which the treatment of malarial diseases constituted the principal part of my practice, the advent of typhoid fever was so gradual and insidious, and it was also so disguised in its features by being mingled with those of the paroxysmal endemic, that it was some time before the new-comer was clearly recognized. It seemed at first to be so controlled by the dominating influence of malaria, that many cases assumed the intermittent, though more often the remittent type. In these cases the effects of the sulphate of quinine were of the most gratifying character. But gradually the typhoid element predominated in its turn, and where before intermittents and remittents annually reigned, the typhoid fever was almost alone observed. The treatment by the liberal employment of quinine, was, however, continued, and though its physiological effects were, in the majority of cases, fully displayed, and the febrile movement, the ever-attending cephalalgia and elevated temperature of the skin were lessened, and in some cases removed, yet, to our chagrin, too often the pyrexial phenomena after the effect of the remedy subsided, again returned, and the disease pursued its usual protracted career.

Of the comparative success of the quinine treatment and the expectant method adopted by others, I cannot speak in positive terms, not having any statistics to guide me to a certain conclusion, but that it diminished the mortality in the first epidemics when it was intermingled with periodical fever, I entertain no doubt. Employed early, in the forming stage, it certainly diminished the violence of the febrile symptoms in the most intense grades of typhoid fever, when uncomplicated with any other disease, and in some epidemics, as I believe, it materially shortened its duration.

In Paris the sulphate of quinine was administered in typhoid fever with beneficial results, by MM. Jacquot,* Worms,† Leclerc,‡ Percira,§ Champaux|| and others, yet the treatment never became generally adopted, and

* Archives, Gen., xv, 5.
† Abeille Med., xiii, 211. ‡ Ibid, 321. § Thèse, 1842. || Thèse, 1846.

as an exclusive method I believe it now has but few advocates. The following conclusions deduced by M. Briquet from the treatment of numerous cases by himself and M. Blanche, are interesting and suggestive:

"1. The employment of the sulphate of quinine should not be considered a general and common method of treatment in typhoid fever. This medication is only applicable to certain special cases, and perhaps to certain epidemics. Commonly, it ought only to be employed to combat certain forms of the disease, and certain predominant symptoms. For this reason the sulphate of quinine should only be employed temporarily, and not beyond the eighth day.

2. The most apparent effects of this medication are produced on the circulation, on the calorification, and the symptoms arising from encephalic disorder. Thus the fever is influenced in an undoubted degree in regard to the frequency of the pulse and the temperature of the skin, consequently we may diminish one of the most annoying symptoms to the patient, prevent congestions and visceral inflammations, which, according to M. Lonis, are so easily produced by the continuance of the febrile state, and in short, exercise a direct but very powerful effect on the symptoms which arise from excitement and congestion of the brain. Consequently, also, the employment of the sulphate of quinine, which is advisable when the fever is very intense and the temperature of the skin greatly elevated, will not be proper when the pulse is not very frequent and the temperature of the skin but slightly increased.

According to the modification of the circulation which it manifests, it also produces a notable change in the phenomena arising from the encephalic lesion.

Thus in all cases where these are predominant, the sulphate of quinine will be a potent means to relieve them, and when they are present in an intense degree (except in cases of prostration) it ought to be administered.

The sulphate of quinine, then, principally succeeds in cases where the excitement of fever is accompanied with cephalagia, titubation, agitation and delirium; when the eye is bright and complexion heightened; when, in short, the fever assumes a phrenitic or ataxic character. On the contrary, where there is prostration, stupor *decubitus dorsalis*, a continual tendency to sleep and a comatose state, the sulphate of quinine, which promptly and notably increases these symptoms, should be avoided.

4. Typhoid fever, accompanied with distinct and regular remissions and intermissions, may be favorably influenced by the sulphate of quinine, employed according to the method used in intermittent diseases.

5. Lastly; either in consequence of the difficulty of absorption, or on account of the obtuse sensibility of the encephalon, the sulphate of quinine may be given without the least inconvenience in larger doses in typhoid

fever than in any other disease. However, doses of fifteen to twenty grains are sufficient in mild cases. In those which are more severe, the dose should be increased from twenty to thirty grains, and finally, in cases of the gravest character, forty-five to sixty grains may be given per day.*

MM. Rilliet and Barthez†, in the typhoid fever of children, have administered the sulphate of quinine with beneficial effects. As the result of their employment of this agent, they arrived at the following conclusions:

"1. The pulse abated in a notable manner, and also diminished in volume, but became irregular.

2. The animal heat diminished at the same time that the pulse was reduced.

3. In some patients the sulphate of quinine caused eruptions of sudamina and very abundant sweats at a period when they do not ordinarily appear in typhoid fever.

4. In some cases desquamation of the cuticle occurred, similar to those following vesicatories.

5. As negative effects, they did not observe any exasperation of the abdominal symptoms, or of the anatomical lesions which characterize the typhoid affection, and, in particular, that it did not produce enteritis."

The quinine treatment in other hands has not been attended with such favorable results. In 1843, the French Academy of Medicine,‡ to whom the Memoir of M. Broqua was presented, decided "that its beneficial effects had not been proven." Unfavorable reports of its action have also been made by M. Petit§ and Drs. Peacock‖ and Barclay.¶

In concluding our notice of the effects of sulphate of quinine in typhoid fever, it ought to be borne in mind that that disease has proven rebellious to all methods of treatment proposed, and that there are more positive proofs of the efficacy of quinine than have been presented by others, in favor of any other remedy or plans of treatment adopted for its cure. Shall we, then, abandon its use altogether? Shall we hesitate to have recourse to a remedy so potent under other circumstances, and especially in those fatal epidemics sometimes observed, when the expectant method can certainly point to no triumphs? That in judicious hands and accompanied with proper adjuvants, the sulphate of quinine, employed at the inception of the disease, may break the force of the attack and obviate the tendency to death, we are fully convinced. Can the same be attested concerning any other remedy in this disease? Let the opponents of its exhibition, at

* *Traité Thérapeutique du Quinquina*, 441.
† *Maladies des Enfants*, ii, 414.
‡ *Bulletin de l'Acad.*, viii, 624.
§ *Abeille Médicale*, xiii, 241.
‖ *Med. Times and Gazette*, 1856, p. 3, 55.
¶ *Ibid*, 1853, p. 31.

all times and under all circumstances, take care that in steering their precious freight of humanity so carefully afar from Charybdis, that they do not become wrecked upon Scylla. The applicability of a medicine to the treatment of a disease cannot be determined in a day or a year, as may be witnessed in the history of the use of quinine in the present century. Less than twenty years ago the most distinguished teachers of medicine denounced its employment in the ordinary remittents of our country, unless there was an evident and distinct remission of fever, and the result was that the most fertile sections of our land remained a vast cemetery. Who can compute the lives lost as a consequence of the error? I do not pretend to say that the administration of quinine will ever be attended with as successful results in typhoid fever, or in any other disease, as time has proven it to be in malarial fever, but I do hold that it is unphilosophical to condemn it without an appeal to further trial.

As we have already intimated, typhoid fever, when occurring in localities where miasmatic or periodical fever is epidemic or endemic, becomes intimately blended with the previously dominating disease of the locality. Such cases have been termed typho-malarial fever. We have here a combination of dangers to contend with, and there is no doubt that the complication increases the gravity of the situation in a high degree. Here the employment of quinine is *indispensable*, and though it may fail in arresting the typhoid affection, yet it will *eliminate the malarial element* and render the treatment of the former malady more successful. It is well known to all experienced practitioners, that it is very often impossible at first to diagnose between typhoid and malarial fevers. We cannot wait and watch the course of the disease to decide its nature, for the delay may be hazardous in the extreme, consequently it has been our rule for many years in in doubtful cases, to give the remedy boldly and immediately. It will mitigate the symptoms if the case be one of typhoid fever, and cannot do harm unless it is continued too long. If it is a case of malarial fever, in from twenty-four to forty-eight hours the disease will be arrested. Quinine, in this exigency, is the surest and safest method of diagnosis.

In Typhus Fever.—Since the time of Morton, cinchona had been employed by English and Continental physicians in typhus fever, but not with a view of suddenly arresting its course.

In 1851, Dr. Dundas, of Liverpool, introduced the practice of giving large doses of quinine in this disease, and his example was soon followed by others. The plan adopted by this physician is thus related by him.* "The dose should be large—ten or twelve grains—and repeated at intervals not exceeding two hours. Three or four doses will, in most cases, be

* *Med. Times and Gazette*, 1851, p. 346.

sufficient to exert the specific influence of the medicine, which is displayed by the dizziness of the head and tinnitis aurium, or in the rapid subsidence of all the urgent symptoms. In the latter event, three grains of quinine, or some bitter vegetable infusion, should be administered three times a day, and the patient supported with some good beef tea, or other light nutriment, and wine, if necessary. Slops should be avoided, and purgatives also, unless obviously indicated, but an emetic of tartarized antimony, when the *prima via* is loaded, will often prove useful at the commencement, and seems to render the system more obedient to the specific influence of the remedy. Should the urgent symptoms persist, notwithstanding the administration of four or five doses of quinine, or should dizziness of the head and tinnitis aurium supervene, the medicine must be discontinued; and after an interval of six or seven hours, small and repeated doses of tartarized antimony should be resorted to, until full vomiting is induced. The patient should then be allowed to rest for twenty-four hours, when the quinine should be recommenced as before. If the symptoms still resist, the remedies may be repeated in succession, as above stated, for a period of four or five days."

Dr. Dundas further states that in all the stages of the disease, the large doses of quinine may be safely resorted to, and will commonly calm the patient, cool his skin, allay the headache, and reduce the frequency and improve the character of the pulse.

The treatment of Dr. Dundas was adopted by Dr. Goolden and Mr. Eddowes with very favorable results.

Dr. Dundas in another paper* on the same subject, remarks that "Neither in my own experience, nor in that of others, so far as I am aware, have the large doses of quinine caused congestion of any important organ. On the contrary, by cutting short or moderating the febrile excitement, they prevent all such congestions, and in this consists the great value of the treatment; seeing that the vast majority of fever cases are carried off by these local affections.

Dr. Robert Gee and William Eddowes, Esq.,† medical officers of the Liverpool Fever Hospital, report very favorably of the action of large doses of quinine in typhus. These gentlemen state that, "In those cases where the quinine treatment was commenced during the first seven days of the fever, the average duration of the disease was 4.4 days after the first administration of the remedy; when during the second week, 5.8 days. From cases treated during or after the third week, no influence can be drawn, the disease then having nearly run its course."

Of 61 uncomplicated cases, 11 were under the treatment during the first

* *London Jour. of Med.*, 1851, p. 1103.
† *London Lancet*, 1853, p. 3.

seven days; of these, two were free from fever on the second day after treatment; one on the third day; two on the fourth day; three on the fifth day; one on the sixth day; one on the seventh day; and one on the eleventh day. In twenty-four, the treatment was commenced during the second week; of these, one was free from fever on the second day after treatment; two on the third day; five on the fourth day; seven on the fifth day; three on the sixth day; two on the seventh day; one on the eighth day; two on the ninth day; and one on the twelfth day. In twenty-six, the length of time that the fever had previously existed was not ascertained; of these, five were free from fever on the second day after treatment; six on the third day; three on the fourth day; four on the fifth day; three on the seventh day; one on the eighth day; three on the ninth day; and one on the twelfth day. The quinine was also given in twenty-seven complicated cases, the chest being involved in twenty-two, the abdomen in two, and in three both the abdomen and chest were affected; of these, twenty-two cases where the chest was involved (the affection being generally subacute bronchitis) fifteen were treated during the first week; of these, one was free from fever on the third day after treatment; one on the fourth day; two on the fifth day; four on the sixth day; two on the eighth day; one on the ninth day; two on the tenth day; one on the eleventh day; and one on the twelfth day. In seven, the treatment was commenced during the second week, of these, two were free from fever on the third day; two on the fourth day; one on the sixth day; one on the seventh day; and one on the tenth day.

The effects of the quinine on the pulse in favorable cases was sometimes very remarkable; in one case it fell from 104 to 72 in twenty-four hours; in another, from 140 to 84 in seventy-six hours; but generally speaking, the reduction is gradual and steady. In cases which terminated fatally, the quinine, with one exception, never reduced the pulse below 100; it sometimes fell from 148 to 124; from 112 to 108; from 140 to 114, but never below 100. None of the fatal cases, which were thirteen in number, were under treatment before the fifth day."

Favorable reports of the treatment of typhus with quinine have also been made by Mr. Hayward, Drs. Glassbrook, Stevenson, and others, whilst on the other hand, it has failed in the hands of Drs. Bennett, Robertson, and others. The weight of testimony certainly is in its favor, and judging from the effects of the remedy in other febrile diseases attended with cephalalgia, frequent pulse and heat of skin, we should suppose that its employment would be attended with salutary effects. The facts sufficiently prove its sedative action on the circulation and innervation, and that it manifests no injurious effect on the secondary inflammations arising in the course of the disease. As *one* of the remedies to arrest the morbid phenomena and

fatal tendencies of typhus, it certainly deserves a conspicuous position. We should expect both results if the medicine were administered in the night, in larger doses, and at intervals, for reasons previously stated.

In Erysipelas.—Cinchona was employed by Fordyce and many others in erysipelas, and soon after the discovery of the sulphate of quinine, Elliotson made trials of it in the treatment of the same disease, in combination with wine and porter, in gangrenous cases. But it is not to its employment in that stage of the disease to which we wish to direct attention. It is of its use as a sedative and antiphlogistic; as a remedy possessing the power of arresting its course, that we wish more particularly to treat.

In our first experience in the treatment of erysipelas, we adopted the usual method recommended by authors, and on the introduction of the tincture of the muriate of iron as a remedy for this frequently fatal malady, that valuable medicine was added to our remediate means, and employed in some cases with gratifying success. But there was a larger class of cases which this treatment did not arrest, and often signally failed in moderating in the slightest degree. These cases were marked by a very frequent, full pulse, great heat and dryness of the surface, headache, and sometimes delirium. The nervous disturbance was very conspicuously marked, and the march of the disease towards a fatal termination exceedingly rapid. Guided by a knowledge of the effects of quinine in health and disease, when freely employed, we resolved to test its powers in the first grave case presented to us. An opportunity was soon offered, and the effects of the remedy were prompt, potent, and decided. Under its action the pulse was rapidly diminished in frequency, force, and volume; the disturbed and excited innervation was calmed, and the febrile heat quickly removed.

During the late war between the Northern and Southern States, we employed the remedy in idiopathic, and still much more frequently in traumatic, erysipelas with invariable success. Employed early in the disease, in large doses, the quantity always increased according to the degree of fever present, the disease promptly yielded in every case. In those cases in which the disease had spent its violence before treatment, and terminated in extensive effusion and suppuration, of course we could not expect, nor did we meet with, such decided and prompt results; but even in these cases the remedy was found efficacious in arresting the further ravages of the malady, and exerted the most salutary influence in promoting recovery. In cases requiring amputation, I did not hesitate to cut through erysipelatous tissues, and found but little difficulty in checking the disease afterwards. The number of cases thus treated cannot be accurately stated, but there were three or four hundred at the least calculation.

The treatment adopted was simply to unload the bowels, if necessary, and then to administer the sulphate of quinine in doses of five to twenty

grains, according to the intensity of the febrile action. On an average, thirty grains were administered in the first twelve hours; the medicine was then discontinued for twenty-four hours, and resumed if the disease continued its progress. The tincture of iron was also generally employed at the same time, and doubtless contributed greatly towards the cure. With these two remedies in the hands of the surgeon, and freely and boldly administered, I believe that erysipelas is almost as completely under control as intermittent fever.

In Scarlatina.—Morton* employed Peruvian bark in scarlet fever. In his admirable work, among others, he relates the case of his own child, "*Filia mea charissima*, MARCIA," in which he employed it successfully. This disposes of all claims in regard to priority in its therapeutic use in this disease, but by a strange coincidence, before I had ever seen a copy of that old and neglected work, I used the sulphate of quinine in the case of my own child. Trusting that a brief recital of the case may prove useful, I will relate it as accurately as I can remember it. The patient was my own son, 9 years of age. He was suddenly attacked with chilliness, followed by ardent fever, inflamed fauces, and well developed eruption on the second day. The surface was of high febrile heat, except the lower extremities; these were rather below the natural temperature. The head was hot, the face flushed, and in the afternoon he became delirious and extremely restless. His bowels had been gently opened by an aperient, and at night leeches were applied to his temples, but were followed by only slight relief; these were succeeded by cold applications to the head, mustard pediluvia, etc. He continued to grow worse, and on the next night his pulse became extremely rapid, and his extremities and cheeks became decidedly cool, the delirium continuing. Knowing the property of quinine, of diffusing the animal heat, besides its sedative and calming effects, I resolved to employ it. Ten grains were administered at a dose at night. Under its operation the child fell asleep, the pulse was greatly diminished in frequency, the extremities became warm, the febrile heat of the head and body was reduced to a normal temperature, and under its subsequent use in small doses, convalescence rapidly ensued.

I regard this case as a happy and appropriate illustration of the most valuable properties of the sulphate of quinine. Such cases are more instructive than all the experiments ever performed on dogs by M. Briquet and M. Melier, or on rabbitts by M. Giacomini. We here observe the effects of a remedy in which M. Briquet, enthusiastic as he is in regard to its valuable properties, yet thinks has a tendency to produce congestion of the vessels of the pia-mater. Yet in this case, in which there was as con-

* *Opera Medica*, i. *De Febre Scarlatina*, 28–35.

vincing proof from the symptoms, that irritation and congestion of the brain existed, as if it had been demonstrated by an autopsy, all the phenomena of cerebral congestion were perfectly and rapidly dissipated under its influence. It remains to those, who contend that quinine excites the brain and produces congestion of its vessels, to explain its therapeutic results according to their hypothesis; we give the facts. As has been forcibly said by M. Broussais "Le vrai médecin est celui qui guérit; l'observation qui n'apprend point à guérir n'est pas celle d'un médecin; c'est celle d'un naturaliste, ou si vous aimez mieux, d'un physiologiste étranger au but que se propose le médecin."

Dr. Edwin A. Morrison,* of Brunswick county, Va., in an interesting article "On the use of Quinine in Scarlet Fever," "offers to his professional brethren the benefits of his experience, sincerely trusting those of them who may be disposed to try the prescription will find it as efficacious as it has proved to be under his direction."

This gentleman, after briefly relating some of his cases, gives the following as his mode of treatment: "When the first symptoms of the disease appear, I order quinine, regulating the dose by the age of the patient. This is administered every two or three hours, until the system is brought decidedly under its influence. During this time I occasionally give a few grains of blue mass to move the bowels gently, and mop the throat with a strong solution of nitrate of silver. When the patient is old enough, I direct a gargle of red pepper tea and common salt to be used. I order the throat of a child to be washed with the same." The Doctor concludes by saying, "I am aware that Peruvian bark has long ago been employed in cynanche maligna, and that some writers have maintained that this is identical with scarlet fever. Hence, it may be said that there is nothing new in the use of quinine for scarlet fever. My object in this communication is not to claim originality, but to place before my medical brethren the results of my experience. I will add that my friend Dr. R. Sims, of this county, has used quinine in some few cases of scarlet fever with the happiest effect."

In Pneumonia.—In that form of the disease assuming a periodical character, of an intermittent, but usually of a remittent type, the value of the sulphate of quinine is generally conceded. Whatever the pathology of the disease may be; whether according to the view of some writers, it is one of the numerous local congestions or inflammations occurring in the course of periodical fever, and originating from the same cause, or merely an accidental complication of the pyrexial malady, the powers of the sulphate of quinine in accomplishing its cure are incontestable. An experience of forty years in regions where this form of disease is annually present, en-

* *Virginia Medical Journal*, xi, 89.

ables me to add my humble, but positive testimony to its capacity, for not only arresting the febrile phenomena, but also the parenchymatous inflammation. It is well known to the student of malarious diseases, that Morton,* J. P. Frank,† Sarcone,‡ Laennec,§ and others, had observed the wonderful powers of bark in the treatment of this disease, and that the sulphate of quinine has been found equally potent by numerous writers, but it seems to have been generally employed in reference to its supposed antiperiodic virtues; yet since its sedative and antiphlogistic action has been clearly ascertained, its effects on the inflammation have been found much more salutary. Constant‖ states that under the influence of large doses of quinine, the hepatization rapidly disappears, and the testimony of Morehead¶ is no less decisive. The author states, that "I am not acquainted with anything more striking and satisfactory in the whole range of rational therapeutics than the progressive but speedy restoration of a hepatized lung co-existing with fever of remittent type when the exacerbations have been controlled by the adequate use of quinine." Not only in this, but in what he considers to be idiopathic pneumonia, he gave "quinine in combination with antimony in the same manner as in the febrile cases, and very frequently with the same good effect." It is true that this author was not aware of the sedative action of quinine, and gave it as an antiperiodic, yet his therapeutic facts remain the same. In Italy, we are told by M. Briquet,** that numerous cases of pneumonia are reported as having been treated successfully by Rasori, Tommasini, and their followers, and in France by M. Favier, M. Guerard, and others.

M. Grisolle,†† in his valuable work, cites a long list of authors who have used the sulphate of quinine in periodical pneumonia, and Drake‡‡ has recorded an equally high estimate of its virtues in the same malady. It is impossible to reconcile these proofs of the antiphlogistic and sedative effects of the sulphate of quinine with the hypothesis of its excitant and stimulant action, and whether the anatomical character of these pneumonias are congestive or inflammatory, or both, they totally disprove the conclusions of M. Melier, that the salt has any tendency to produce congestion of the parenchyma of the lungs.

To those who hold that periodical pneumonia is a hybrid disease, composed of inflammation of the lungs and remittent or intermittent fever,

* *Op. cit. Hist.*, xxi. Lugduni, 1737.
† *Traite de Médicine Pratique*, 1, 176.
‡ *Maladies Observèes a Naples Tome* 1, 176.
§ *Traite de l'Auscultation mediate* 3*m. Ed.*
‖ *Bulletin de Therap.*, xliii, 481.
¶ *Clinical Researches on Disease in India*, 542-3. London, 1860.
** *Op. cit*, 483.
†† *Traite de la Pneumonie.* (Pneumonies periodiques), Deuxieme ed. Paris, 1864, 411.
‡‡ *Dis. Int. Valley N. A.*, 2d Series, 872.

clinical experience affords such unanswerable proofs of the sanative effects of the quinine treatment, that it must be conceded that the remedy is as efficient in removing the inflammation as it is in arresting the pyrexia.

In Cynanche Trachealis.—In ordinary croup I have witnessed the most beneficial results from the administration of the sulphate of quinine. I was first lead to its employment from having often observed its remittent character, the remissions usually occurring during the morning hours. In conjunction with tartar emetic and calomel in moderate doses, I found that quinine freely employed, in doses of two to five grains, in infantile cases, materially assisted the action of those remedies and promptly arrested the disease in the large majority of cases. I have not lost a patient with croup since I adopted this treatment.

In Delirium Tremens.—We have seen it stated that the sulphate of quinine has induced symptoms resembling delirium tremens. That this remedy may, in large doses, enfeeble the functions of the brain to such an extent as to give rise to symptoms resembling that disease, may be admitted as possible, although such an occurrence, in a very extended experience with the salt, has never been observed by me. Symptoms bearing a close resemblance often result from very different causes and conditions, but, however this may be, in *real* delirium tremens I have seen the most prompt and decided favorable results from the exhibition of quinine. To a patient laboring under this disease who had not slept for one hundred and twenty hours, and to whom large doses of laudanum and morphine had been given ineffectually, I gave twenty grains of the sulphate of quinine with the effect of producing sleep in an hour after its administration. The remedy was repeated every night in smaller doses, until perfect tranquillity of the innervation was established. Some of my professional friends have given the remedy with the same happy results.

In Acute Rheumatism.—Morton* gave Peruvian bark freely in acute rheumatism, not only when affecting the intermittent type, but also when presenting a continuous character; the remedy being preceded by bleeding and purgatives. This practice was likewise followed by Saunders,† Fothergill,‡ Haygarth,§ and others. Morton administered the bark in quantities of one and two ounces with prompt relief. Saunders states that he generally began "about the seventh day from the attack with the cold infusion of the red oak bark in the dose of three ounces every three hours, until the evening paroxysm came on." "I have found," he states, "in many cases by this practice, the rheumatic fever greatly shortened and the debility and torpor in the joints, which is frequently the effect of that

* *Opera Medica*, Tom. I., De prot, Feb.; int. p. 84, et De prot, febr. cont. 149.
† *Obs. on the Red Peruvian Bark*, London, 1783, p. 74.
‡ *Med. Observ. and Inquiries*, 1, 319.
§ *Clinical History of Diseases*, 89.

disease, together with the disposition to the chronic rheumatism, generally prevented." He premised the use of the bark by antiphlogistic treatment.

Haygarth at first gave the bark very cautiously in small doses, premising its administration by venesection and cathartics, but he afterwards gave it in quantities of one to two ounces in twelve hours, only preceded by an antimonial emetic. Under this treatment he stated "that the pains, sweats, and other symptoms of inflammatory fever manifestly and speedily abate till health is perfectly restored." It was his opinion that "except mercury in the syphilis, there are few or perhaps no examples where a remedy can produce such speedy relief and perfect recovery in so formidable a disease, and adds: "For many years I have been thoroughly convinced that the Peruvian bark has a much more powerful effect in the rheumatic than in any other fever; and that it does not even cure an ague so certainly and so quickly."

Notwithstanding these and other favorable reports of the efficacy of cinchona in rheumatism, the practice never became general, and its employment was usually limited to the last stages of the disease on account of its supposed tonic effects in relieving the exhausting sweats, etc. On the discovery of the sulphate of quinine, this remedy was also tried in the disease, but did not attract much attention until M. Briquet brought it prominently forward to the notice of the profession. This physician employed the salt in large doses in rheumatism, and in his treatise gives the history of this treatment in two hundred and fifty cases of acute and chronic forms. We translate the following extracts from his work, that give the result of his method; the effects on the circulation have been previously detailed:

"The sulphate quinine, in doses of fifteen to forty-five and sixty grains, greatly modifies the phenomena, march and duration of acute articular rheumatism.

It acts as a very powerful *calmant*, and soon produces restorative *sleep*.

The tumefactions of the joints are notably prevented; those which are already existing are diminished or lessened in their intensity. The fever which accompanies the articular lesion is also invariably diminished in a considerable degree.

The complications of endocarditis and pericarditis did not prevent the action of the sulphate of quinine on the principal malady, but often underwent a notable amelioration from the employment of the remedy.

When proper precaution was taken in the choice of subjects, and in the administration of the remedy, the sulphate of quinine, even in the largest doses, did not produce any serious accident."

The experience of the writer of this essay, in the employment of the sulphate of quinine in acute rheumatism, although not very extensive, has been highly satisfactory. I have not, however, relied upon it solely. In

plethoric subjects, the action of the remedy has always been assisted by the abstraction of blood, and in other cases by the administration of colchicum, aperients, etc. I have always found the pulse diminished in force, volume and frequency, under its use, and the violence and march of the disease controlled in an evident degree. I have seen no exasperation of the disease, or its complications, from its employment in any case. When we reflect upon the usual tedious duration of acute rheumatism, the agonizing suffering attendant upon it, and the serious organic lesions to which it so often gives rise, we should welcome any remedy which would diminish its violence and abridge its duration. That the sulphate of quinine has produced these salutary results, there can be no reasonable doubt, and I feel assured that it will eventually be considered one of the most valuable additions to the therapeutics of the disease.

In Chronic Rheumatism.—The effects of the sulphate of quinine in the treatment of chronic rheumatism, though not so immediate and decisive, are generally conceded to be very beneficial. I have nothing to add on this subject to the information to be found in works generally accessible.

In Cholera Infantum.—I have witnessed the most beneficial effects from the employment of the sulphate of quinine in this disease. I was first led to use it in this fatal malady from observing the unequal distribution of animal heat to be discerned in the majority of cases, the strong tendency to congestion of the brain, in the worst grades of the affection, and its simultaneous appearance and disappearance with malarial fever, &c. Given in sedative doses, I have not only seen these symptoms promptly removed, but also have generally observed the vomiting and purging to cease. I have seen it rescue cases in the last stages of the malady, when the extremities were cold and the patient in profound coma. Did the limits of this paper admit, I could relate almost miraculous recoveries from the use of the remedy in this disease, in apparently hopeless conditions. In cholera infantum I usually prescribe it in doses of one to three grains (carefully watching its effects lest its sedative action might transcend the desirable degree) and repeating the doses every two or three hours, according to circumstances. In the chronic diarrhœa following attacks of cholera infantum, I usually employ it in small doses in combination with tannin and subnitrate of bismuth.

In Cerebro Spinal Meningitis.—I have, save in a single case, invariably used quinine in large doses in the treatment of this disease, and with the most satisfactory results. Only one death has occurred in my practice, and in that NO *quinine was given.* That case was of the *fulminant* form—the *méningite foudroyante* of the French—in which death occurred in twelve hours from the commencement of the attack. The patient was seized with symptoms resembling a chill, at 8 A. M.; tardy and imperfect reaction

ensued; the head was hot and the body warm, but the extremities continued cool to the last. Comatose delirium and opisthotonos occurred at 1 o'clock P. M., only five hours after the invasion, the pulse remaining feeble, frequent and contracted from the commencement. I was convinced from the rapid course and grave symptoms of this case that there was no remedy known that offered a hope of salvation in such conditions except quinine. In the cases afterwards treated, the patients were promptly purged with free doses of calomel (ten to twenty grains), and quinine was simultaneously or soon after administered in doses of fifteen to twenty grains. Relief of pain and sleep were further secured by full doses of hydrate of chloral (ten to fifteen grains), given every two to four hours, with prompt blistering over the occipital region. The administration of quinine was regulated by the thermometer—increasing or diminishing the dose *pari passu* with the rise and fall of the internal temperature. Under this treatment, prolonged sleep and relaxation of the spinal tetanic spasm occurred; profuse blackish-green, discharges from the bowels appeared, and when awaking, the mind cleared up and gradual, but certain and regular convalescence ensued.

Now what is the pathological anatomy of this disease? Indisputable appearances of intense inflammation of the pia mater investing both brain and spinal marrow, congestion of the substance of the brain and medulla spinalis, copious effusions of serum in the cerebro-spinal cavities, and frequently the abundant presence of pus itself. Let us not forget that similar appearances of cerebro-spinal inflammation were present in the cases of the delirious form of periodical fever, described by Torti, Senac, Lind, Hildenbrand, Bailly, Maillot, Gintrac, Nepple, Morehead, Berenguier, Monfalcon, Mongellaz and others, in all of which cinchona or quinine was found to be the only reliable remedy, and we must be convinced that quinine, so far from producing congestion or exciting inflammation of the brain, has proven itself to be one of the most certain remedies in removing those lesions in a vast number of cases.

Modus Operandi of Quinine.—It must be confessed that the mode by which remedies counteract and remove disease is a subject replete with difficulty and obscurity. The phenomena of disease—perverted life—can never be perfectly explained until the science of normal life is clearly understood, but as there are many ascertained truths in physiology, we often arrive at an approximate knowledge of the action of remedies, and are thereby enabled to formulate instructive classifications and to institute safe and reliable rules in regard to their use and action. Let us, then, with the lights before us, endeavor to ascertain the *modus operandi* of the most certain and valuable remedy yet discovered.

It is a source of just pride with therapeutists that in quinine they possess

a sure and reliable agent for the cure of wide-spread and too often fatal diseases. The diminution of the mortality in malarial regions since its introduction has been so evident and incontestible, that it has engaged the attention of all civilized nations and has received the earnest consideration of the highest departments of government. It is, therefore, a matter of great moment to ascertain its method of operation, as it may lead to a better understanding of the essential nature of disease, open the way to the discovery of other agents possessing similar or substitutive powers, and enable us to discover the recondite connection between the various and apparently dissimilar maladies in whose treatment its employment has been found to be universally efficacious.

As we have seen, the first effect of quinine on the human economy is made evident by an altered function of a nerve of special sense, viz., the auditory nerve. This is often produced in susceptible subjects by minute doses of the agent, and consists of varying degrees of tinnitus aurium and deafness. Subsequently, whether the salt is given in large doses, or after the repetition of small doses, we observe a certain and gradual reduction of heat, relief of cerebro-spinal pain, mitigation and disappearance of restlessness, decline of the pulse in force, frequency and volume, cessation of nausea and vomiting, copious diuresis and diaphoresis, psychical, calm and normal-like sleep. If the dose of the medicine be further increased, the patient complains of dimness of vision, confusion of thought, and vertiginous sensations. He then becomes indifferent to all surrounding objects. He desires nothing, hopes for nothing, fears nothing. Although he may be easily aroused, and his replies are intelligible and reasonable, he soon relapses into delightful slumber. The remedy pushed farther, the pulse gives way, becoming feeble, small, and frequent, the skin becomes cool or cold and bathed in a copious, adhesive perspiration, the patient becomes blind, perfectly deaf, and comatose, and in rare instances death closes the scene. It will be seen, therefore, that the primary impression of the medicine is made upon that portion of the medulla oblongata, from which the auditory nerve arises, the posterior root of which may be traced to the gray matter beneath the floor of the fourth ventrical, which is connected with the white substance of the cerebellum, the anterior roots springing from the borders of the calamus scriptorius, and some of its fibres also being traced to the cerebellum. We are thus enabled to map out a small space in the nervous centres, from which the auditory nerve takes its origin ; the hyperæsthesial region in quinial intoxication.

Again, the dimness of vision experienced by some patients can only be attributed to the action of the salt upon the origins of the optic tracts, viz., the corpora quadrigemina, corpora geniculata and optic thalami, whilst if the medicine be pushed further, its effects are proven not only by its relief

of pain in the cerebro-spinal and ganglionic systems, but also by the introduction of sleep, due to its action on the gray matter of the cerebral convolutions.

Let us now examine into the pathology of malarial poisoning, against which it is universally recognized as the most potent remedy.

It may be regarded as a self-evident proposition, that malaria is a *materies morbi*, which being absorbed by the blood and conveyed throughout the system, manifests a special affinity for the nervous centres. As we have said, this is proven by the vast number of cases of neuralgia of a strictly periodical character, involving every nerve in both systems of nerves and every part of their centres, and giving rise not only to pain, but to disordered function and various lesions in the parts to which those nerves are distributed. These phenomena can only be due to the influence of an irritant poison circulating in the blood and impinging upon those portions of the nervous centres most readily impressible by the noxious agent. It is then upon IMPRESSIBILITY of the nervous centres, and especially of the cerebro-spinal system, that quinine exerts its influence. It obtunds, stupefies the impressionable centre, and renders the action of the poison ineffectual. Why any poison should select special parts of the nervous centres for its toxic invasion, we cannot explain, but it is proven by observation of the effects of many poisons. Need we point to the innumerable localizations of the syphilitic poison, as a familiar example, which are all mitigated or removed by the same remedial agents. That this theory, that quinine exerts its remediate power by rendering the nervous centres insensible or unimpressible, is true, is further supported by the fact that other agents which have been proven to be remediate in malarial fever, possess, in common with it the power of impairing or even destroying the impressibility of the nervous centres. The reputation that opium for centuries enjoyed, and later the effects of chloroform in the treatment of malarial poisoning are doubtless due to their analogous effects on the centres of impressibility.

It is well known to those who have had extensive experience in cases of malarial poisoning, that many cases are self-limited in their duration, and terminate in health without remediate measures—the poison being spontaneously eliminated from the system. Quinine would then reasonably seem to cure or at least to obviate the pernicious effects of the poison by rendering the centres of impressibility insensible to its action while under its paralysing influence, and thus affording time for the noxious agent to be eliminated from the system. The great tendency to relapse in such affections, even in those cases in which the system had been saturated with the medicine, seems to prove that its therapeutic effects are not due to any antidotal or germicidal property. The morbid phenomena return after the

centres have escaped from the stupefying, or we may say the partially paralyzing, effect of quinine on the nervous centres. It is generally supposed by those who have never resided in regions where the malarial poison is most concentrated and malignant in its character, that the inhabitants universally suffer from the influence of the poison. It is true that a vast *number do* suffer from its toxical impression, but it is as equally true that a very large number *do not suffer* at all, and preserve their health intact in the poisonous atmosphere. They enjoy an *immunity* either partial or perfect, transitory or permanent, against the power of the poison, and why? It cannot be denied but they also absorb the poison into the blood. In the air they all breathe the deadly agent floats; in the waters they drink, as Hippocrates held, the mortal miasm is held in solution; from the soil they till the hidden foe starts up. How can we explain this immunity, save by the facts that the impressibility is not aroused; that the sensibility of the nervous centres does not respond to nor is affected by the poison absorbed by the blood and circulating through the substance of its tissues in the same manner as they are not affected by many other poisons proven to be present in the blood. The first taste of tobacco sickens with unendurable nausea; the first drink of brandy intoxicates to madness and coma; the first dose of opium paralyzes the senses, destroys the consciousness and poisons the centres of both systems; but by habitual use, the *impressibility* to these is lost, and the same agent that poisoned before is now unfelt and innocuous. The poison is still absorbed in the blood, but the centres do not respond; the *power* of *impressing* is in *abeyance*, because they are no *longer capable of being impressed.*

Quinine, therefore, confers *immunity* from the effects of the *toxic* agent by *obtunding*, *stupefying* and even *paralyzing* the centres of impressibility, and, therefore, so far as the patient is concerned, placing him on the same plane as his healthy comrade, who, exposed to the same cause, inhaling and absorbing the same poison, and which, though circulating throughout his entire being and permeating every living tissue, is as harmless as the mother's normal milk to the healthy infant.

All of the secondary phenomena arising from the action of the malarial poison—pain, fever, perverted sensations, and impaired function—are evidently due to disturbance of special centres, which cease as if by enchantment, as soon as the impressibility of those centres is sufficiently impaired or suspended.

It is well known to the scholar that malaria may concentrate its action upon any part of the nervous system, and there is every reason to believe that it thereby perverts the functions of every part to which their nerves are distributed—*neuralgia of every nerve, congestion, irritation, inflammation*

of every organ, and fever of every type—may be the consequence of its malign influence; yet all these various pathological conditions yield to the same remedy. In like manner, its beneficial effects in many other diseases may be explained. It impairs or suspends the impressibility of the sources of innervation, and gives time for the elimination from the organism of the various morbific agents from which they originate. We cannot otherwise explain the salutary action of quinine in diseases arising from entirely different causes, as, for example, malarial fever, cerebro-spinal meningitis, rheumatism, erysipelas, etc., in which its virtues have been attested by so many distinguished authorities.

In the absence of any other satisfactory solution of the *modus operandi* of quinine, we are justified in declaring that it potently contributes to the removal of disease by rendering the nervous system insensible to the action of the morbific causes of those maladies in which its employment has been proven by experience to be efficacious. It does not, to use a hackneyed phrase, *inhibit reflex action*, for reflex action, requires as its factors an afferent nerve, a sensitive centre, and an efferent conductor of a reflected impression, but it *impairs the impressibility itself*, and "fatal things pass harmless" by the paralyzed centre. The centre does not and cannot reflect an impression which it has been rendered incapable of receiving. It has been *paralyzed partially or perfectly* by quinine, and therefore placed beyond the pale of danger. In a word, if we may be excused for coining a new word, *quinine is a* PARALYSANT. This may seem a severe and repulsive designation, as in proper quantities it merely *benumbs, stupefies or narcotizes* the nervous centres, but these really are but *varying degrees* of PARESIS. The *theory* here advanced, based solely on *facts*, can only lead to *safe* and *certain results* if guided by the inexorable rule that in its administration *the physician must constantly have in view the end to be attained*, viz., to render the receptive centres securely insentient to its morbific assailants, and to hold them in subjection until they have lost, by elimination or from exhaustion, their power to impress. This can be only accomplished by increasing the quantity of the remedy until the desired effect is secured. If, as happens in rare instances, its depressing effects should transcend the normal degree, they may be speedily removed by the moderate use of brandy or other alcoholic stimuli.

Mode of Administration.—The sulphate of quinine may be administered in various modes. When given by the mouth, we prefer to administer it simply diffused in water or in pills freshly made with syrup of gum acacia, or made into a pilular mass and placed in gelatine capsules. By the latter mode, the patient is relieved from its bitter taste, and we have always found it as efficacious as when given in solution. In cases of intense gastric irritability, immediate danger, or in those in which patients are unable

to swallow, as sometimes happens in malignant forms of fever, it may be administered by the rectum, usually an excellent and efficient method, or injected beneath the skin. From numerous trials of the hypodermic method, its effects have been found to be prompt and efficient. For this purpose, the formula of M. Dodeuil, already given (page 47), may be used, or of the salt may be dissolved in recently distilled water, by the addition of a few drops of dilute sulphuric acid. These methods of administering the remedy render its employment by other and more uncertain practices of applying it to blistered surfaces, etc., entirely unnecessary. When introduced by the rectum, it should be given in at least double the quantity of the ordinary dose, and in the case of children, when given by the mouth, it may be disguised in coffee, milk or licorice.

In conclusion, I feel that I should be doing injustice to others, as well as myself, if I neglected to add that in the numerous trials and experiments I have made with the sulphate of quinine during the last forty years, I have generally used that formerly prepared by John Farr, and since by his worthy successors, Powers & Weightman, of Philadelphia. Many adulterated and spurious articles have been offered for sale in our markets, but the product of the above establishment alone has never failed in my hands to accomplish the desired result. I therefore desire to record my thanks to this house of honest chemists for having furnished to the world a pure preparation by which thousands of lives have been saved.

REPORT
OF THE
NECROLOGICAL COMMITTEE.

JOHN S. APPERSON, M. D., Town House, Va., Chairman.

Dr. Levin Smith Joynes.—The Committee finds so complete a memoir of Dr. Joynes in the February number, 1881, of the *Virginia Medical Monthly* that it is adopted as the report of the Necrological Committee.

"*Levin Smith Joynes, A. B., M. D., LL. D.*, was born in Accomac county, Va., on May 13th, 1819; he died in Richmond, Va., January 18th, 1881, in the sixty-second year of his age. At the early age of sixteen years, he graduated as Bachelor of Arts in the Washington College of Pennsylvania, and then spent two years in the academic department of the University of Virginia. He next began the study of medicine—attending lectures at the University of Pennsylvania, and afterwards at the University of Virginia, from which latter institution he was graduated Doctor of Medicine in 1839. That he might feel himself the better qualified to enter upon the responsible duties of the physician's life, he went to Europe, and spent about two and a-half years attending medical lectures delivered by the then shining lights in medical history—mostly in Paris and Dublin. When he returned to America, in 1843, he located in his native county. In 1844, he removed to Baltimore, from which city he was called to Philadelphia, in 1846, to assume the Professorship of Physiology and Legal Medicine in the Franklin Medical College. After about two years or more (1849), he removed to his native county in Virginia, where he again resumed the practice of his profession, and continued in this line of duty until 1855, when he was elected Professor of the Institutes of Medicine and of Medical Jurisprudence in the Medical College of Virginia, in Richmond. In 1856, he was elected Dean of the Faculty of that College, which position, in conjunction with his Professorship, he held until the close of the session of 1870–1, when he resigned on account of failing health, and was then elected Emeritus Professor. A year's respite from his arduous duties as an experimental and demonstrative Professor of Physiology (to which chair he was elected in 1859), and from active practice, in a measure, restored him to

health; so that, when the State Board of Health of Virginia was established, in 1872, he was elected its Secretary, and performed fully the duties of his responsible office, so far as the imperfect and ineffective laws of the State, as passed by the Legislature, would allow. All the apparent shortcomings of the Board of Health, so far as the duties of the Secretary were concerned, were due to imperfect legislation, and not to Dr. Joynes—to whom the State owes, and will ever owe, an unrequited obligation.

He was an early member of the American Medical Association—having joined that body in 1847. His judicial ability was generally recognized, as he was on the Judiciary Committee of Fifteen from all the States for the full term beginning 1873. He was, during every session of the American Medical Association which he attended, honored with positions of trust and respect—so generally recognized was his ability.

Of the *ante bellum* Medical Society of Virginia (but little more, however, than a Society of the physicians of Richmond city), he was President in 1858. But in his connection with the larger, numerically, and more generally representative *post bellum* 'Medical Society of Virginia,' he was the delegate, in 1876, to the International Medical Congress, which convened in Philadelphia, Pa. He was President of the Medical Society of Virginia for the session of 1878–9. In short, Dr. Joynes has occupied every important position of professional trust and confidence in Virginia that it was possible for any one practitioner to enjoy, and his death has caused a void which the profession of the State knows not how to supply.

During the Confederate war, he was always a 'Conservative,' as he has been since, in a political point of view. But yielding to the 'powers that be,' and ever ready to give allegiance to his native State, without any disloyalty to the existing general government, he accepted the position of Assistant Surgeon in the 'Forces of Virginia' in April, 1861, which position he resigned in June, 1861, when the Medical Department of the Confederacy was thoroughly organized, and no longer needed the special help of the States.

Dr. Joynes' contributions to medical literature were numerous and valuable. No article of his ever went to press without thorough preparation in study of the subject of which he was treating and exactness in manuscript. * * *

We cannot undertake to give the titles even of all his numerous contributions to medical literature, by which the profession of the South especially has so much profited, and which, in great part, have helped to give prominence to Southern medical literature. From notes in our possession, however, we may cite the following: 'Obstetrical Auscultation,' in the *American Journal of Medical Sciences*, January, 1845—at that day a new subject; his paper contained a great deal that was then fresh, and many practical sug-

gestions, now commonly appreciated by the profession as correct, but without a due recognition of the authority from which the practical suggestions emanated. To the same *Journal*, in January, 1852, he contributed an article of great value on 'Emphysema of the Cellular Tissue in Labor'—a subject that has really never received sufficient attention on the part of authors of systematic works. 'Obstruction of the Intestinal Canal by Worms' was the title of an article of great merit which he contributed to the May number, 1851, of the *Stethoscope*—a Virginia journal then published in Richmond. To the same journal he contributed numerous other papers, chief among them being 'Ancient Superstition,' October, 1851, 'Colica Pictonum from Acetate of Lead,' etc. To the successor of the *Stethoscope*—the *Virginia Medical Journal*, which afterwards became the *Virginia & Maryland Medical Journal*—he contributed many articles of value, the most important of which were on the 'Legal Relations of the Fœtus in Utero,' September, 1856; 'Physiological Position of Fibrine,' May, 1859. To the *Richmond Medical Journal*, which afterwards became the *Richmond & Louisville Medical Journal*, February and March, 1866, he contributed papers on 'Nævus Treated with Collodion,' 'Value of Medicinal Pepsin,' March, 1869; 'Hæmorrhagic Malarial Fever,' March, 1877. To the *Virginia Clinical Record*, he contributed a number of papers, some of which were of general interest, such as 'Extracts of Beef, September, 1871; 'Bromide of Zinc,' July, 1873. To the *Virginia Medical Monthly*, Dr. Joynes was specially kind in his contributions of pen; and in all matters of advice his counsels have shown themselves to be prudent and effective.

Dr. Joynes was married twice. In December, 1854, he married Miss Rosa F. Bayly, of Richmond; but she died in 1855. In June, 1858, he married Miss Susan V. Archer, also of this city, who, with her son, survive him.

The exact cause of Dr. Joynes' death seems to be somewhat undecided. For the last year his health had been failing, with development of pain on the right side of his face, which pain for sometime was attributed to malarial neuralgia. Soon, however, it was evident that disease of the antrum of Highmore had developed. This cavity was evacuated with great relief, and everything apparently was progressing favorably, when it was found that the disease of the antrum, which did not seem at the time to be possessed of malignancy, was extending upwards, involving other bony structures, until the floor of the cranial cavity, or, perhaps, roof of the left orbit, was penetrated.

At a conjoint meeting of the Academy of Medicine and other members of the medical profession of Richmond, convened January 19th, 1881, to express their appreciation of the personal and professional worth of Dr. L. S. Joynes, Dr. James Beale was called to the chair, and Dr. Charles M.

Shields appointed Secretary. The following tribute, presented by a committee appointed for the purpose, was unanimously adopted:

'By birth, education and association, Dr. Joynes was emphatically a gentleman in the broadest acceptation of the term. Courteous in manners, kindly in character, possessed of a very high order of mind, which had been enriched by all the treasures that years of unremitting labor in the field of science and literature had enabled him to accumulate, his patrons found in him a skilful physician, his profession an able counsellor, and his friends a delightful and instructive companion. The loss of such a man is a sad blow to the community in which he so long labored and was so much loved; and the void he leaves in the professional rank will be hard to fill. While his professional brethren feel the deepest sorrow in their own loss, and the most heartfelt sympathy for his bereaved family, yet to all they would commend the consolatory reflection that the deceased has been transferred from the pains of earth to the beatitudes of Heaven.

The Academy and profession, as a further evidence of their sympathy with the family, will appoint pall-bearers, and attend the funeral in a body.

A copy of these proceedings will be furnished to the family.

Committee—Jos. A. White, R. T. Coleman, J. B. McCaw, J. S. D. Cullen and O. A. Crenshaw.'

After the reading of the above resolution, Dr. J. Grattan Cabell made the following remarks:

'*Mr. President*,—I am unwilling for this occasion, when we are called upon for an expression of our appreciation of departed worth, to pass without at least an effort to add to the tribute offered to the memory of our late friend, Dr. L. S. Joynes.

An intimate personal acquaintance of more than forty years, gave me a full opportunity of knowing the man in every relation of life. We were students together in the Medical Department of the University of Virginia. We were then separated for several years—he going to Philadelphia and I to Baltimore—to continue our medical studies. Afterwards we were re-united in Paris, each endeavoring to avail himself of the clinics at the hospitals—all the time the ties of friendship being cemented by constant and harmonious intercourse.

I especially desire to recall his virtues as a friend, proved and tested by this long acquaintance. As such, he was not demonstrative, but constant and sincere. Nothing was allowed to mar such relations when once formed, except the painful conviction of misplaced confidence.

In all the duties of private life—as son, brother, husband and father—he combined the qualities that endeared him to the family circle.

Soon after the commencement of his professional career, his talents were appreciated. As we all know, as Professor and Lecturer, he acquired a reputation few men have equalled. As a practitioner, his admiring friends now bear a mournful recollection of his skill and affectionate attention. We, as Fellows of the Richmond Academy of Medicine, and as members of the regular medical profession of Richmond, can testify how valuable and instructive were his counsels. No subject, however intricate, failed to be elucidated when once he applied his mind to it. His mind was stored

with medical information to such an extent as to form a regular encyclopædia for the instruction of its members; and it will be remembered with what modesty he imparted the knowledge acquired by study and application.

The void made in our Academy cannot be filled. I cordially endorse the resolutions offered by the committee in honor of his memory.'

Dr. M. M. Walker made the following remarks:

'*Vir ornatus et summis animi dotibus instructus*' are words familiar to us all, for they have been said of us all. Of how many are they true? But we stand to-day by the open grave of one who was an accomplished gentleman, graced and endowed with great gifts of mind—abreast with the age in the science of his calling and skilled in arts. A great light has gone out in our midst. Some of you have been associated with him as a colleague, and are far better prepared to speak of him than I am. For years, he labored assiduously for the advancement of science and the benefit of his fellow-man; and in the minds and hearts of the successive classes that have left the halls of the Medical College of Virginia, I am sure no name will ever be recalled with deeper reverence and respect than that of Dr. L. S. Joynes. Many before me have sat at his feet, and imbibed from his lips the fundamental laws of our science, enriched and illustrated by gleanings from his fields of experience; and the news of his death will be heard by hundreds of his students in this and other States with feelings of profound sympathy and sorrow. We have all known him as the acute diagnostician, the learned pathologist, the skillful physician, fertile in resource, clear and impressive in the expression of his opinions, irresistible with the truths he uttered. But we have known him also as a man and a citizen, as a husband, a father and a friend, discharging faithfully his duties in every relation of life; and we can proudly hold him up to the world as a bright example of personal and professional worth; for who has ever heard one word which impugned his honor as a man, or derogated from his well-earned position as a man of science? Let us emulate his assiduous zeal in the cause of science, his untiring devotion to his profession, his genial kindness of heart, his conscientious discharge of duty; and although we may not scale the heights which he reached (for his talents are vouchsafed to but few), we will have earned the respect and confidence of our cotemporaries, and above all, enjoy the consciousness of a life well spent.

I feel constrained to pay my humble tribute to genius and industry, to probity and honor, and all that is elevating in manhood and ennobling in our profession.'

Dr. Joynes' remains were escorted to St. Paul's Episcopal Church (of which he was a communicant) by a large number of the profession, and thence they were borne to Hollywood Cemetery, where they were interred.

Dr. Joynes always enjoyed the fullest confidence of his professional brethren of the State, as well as of the community in which he resided. He was punctilious in the bestowal and recognition of courtesies, somewhat reserved in general company, except when his views were asked; and then, as if prepared by previous special study of the subject in hand, he would review so concisely and precisely the evidence in the case, and make such exact references to authorities and dates and events in his own experience, and would, from these things, deduce such logical conclusions, that, whenever he spoke, he riveted attention and carried conviction. As a friend, he was not demonstrative, but true. As a citizen, he represented the highest type of a Virginia gentleman. As a member of the profession of medicine, he was strict in conforming himself to every requirement of the 'Code of Ethics,' although himself, in medical politics, a representative of the more conservative element of the profession. * * * In his religious life, his was a life of consistency and devotion to the principles of the Christian faith.

Dr. Joynes' death was a calamity to the profession of the State. His now finished life was an exemplary one. 'Being dead, he yet speaketh,' and the influence of his life will long be felt by those who knew him, and who had been associated with him. We have no words to express our own grief at the loss of so useful and upright a practitioner."

Dr. Charles Macgill, lately of Richmond city, died at the home of his daughter, Mrs. Drewry, in Chesterfield Co., Va., May 5th, 1881, in the 74th year of his age. Until about a year or so previous, he had enjoyed remarkably fine health. He was then a man of excellent physique and unusual energy, and was actively engaged in the practice of medicine. An attack of hemiplegia then prostrated him, from which he never fully recovered. Under medical advice, he retired from active work, and removed to the home of his daughter in Chesterfield county. Dr. Macgill was one of the original members of the Medical Society of Virginia. He was eminent in the profession, a man of sterling worth, gentle, courteous, but manly and brave. Few men in Virginia, where he spent the last years of his life, or in Maryland where he was raised, so perfectly enjoyed the confidence of the people. He was buried from St. Paul's Protestant Episcopal Church, of this city, on May 6th, 1881.

The following resolutions were passed by the Richmond Academy of Medicine as expressive of the feelings of his professional brethren—Drs. J. S. Wellford, O. Fairfax and J. G. Skelton, Committee on Resolutions:

"Again, after a brief interval, in the dispensation of Providence, is the medical profession of Richmond called on to mourn the departure from their midst, of one who has borne the heat and burden of the arduous duties of their professional life, and who, for many years, has not only in this community, but also in a sister State, struggled—yea, most manfully struggled—to diminish human suffering and procrastinate the approach of the inevitable doom which hangs over us all. He was a man

of no common mark; his known courage, his gallant conduct and his reckless disregard of consequences, when convinced that duty dictated his line of conduct, proved him a man of heroic character, and his decease is no insignificant loss to any profession; therefore,

Resolved, That the Richmond Academy of Medicine, in the death of Dr. Charles Macgill, formerly of Hagerstown, Maryland, but for many years a skillful and eminent practitioner of this city, recognize and acknowledge that our professional ranks have suffered the loss of one who, by his acquiescence in the stern requirements of duty, in peace and war—his inflexible regard for truth and his devotion to his profession, has earned for him a high position in our hearts and affections.

Resolved, That a copy of these resolutions be forwarded to the family, and also be published in the *Virginia Medical Monthly*.

H. H. Levy, *President*. C. H. Shields, *Secretary*.

Dr. Phillip Howell Lightfoot, of Petersburg, Va., died at his home after a short illness, September 30th, 1881.

The Committee finds so faithful a notice of the life of Dr. Lightfoot in one of the Petersburg dailies, that they adopt it as a part of their Report, as it appeared on the morning after his death:

"For more than a week past we have been informed of his desperate illness, but his youth, physical hardihood, and indomitable will made themselves felt to such an astonishing degree that hope had begotten faith in his ultimate recovery. Death, however, has asserted his power, and the sad reality presents itself that Dr. Lightfoot is no more.

Dr. Lightfoot was born in Caroline Co., [Va.] on the 12th day of September, 1853, and at an early age, exhibiting a rare zeal for learning, he was sent to the Virginia Military Institute, at which he graduated with distinction. In January, 1876, though "a stranger in a strange land," he was, in consequence of his eminent abilities, generous learning, and high moral character, elected by the School Board of the city of Petersburg, Principal of the Peabody School. At the end of the session his qualities as a teacher were so universally recognized that he was advanced to the position of Principal of Anderson Seminary for the session of 1877–8. In October, 1878, Dr. Lightfoot commenced the study of medicine in the Medical College of Virginia, and graduated with high honors in March, 1880, going forth to the practice of his high calling with the plaudits and commendations of the Professors under whom he had received his instruction.

In December, 1877, Dr. Lightfoot married Miss Nannie Claiborne, the daughter of Dr. John Herbert Claiborne, of this city, and leaves her now a widow, with two infant boys, to deplore the unmeasured loss which they have sustained. Nor are they alone in the grief which his departure has occasioned. Old men and young, sick men and well, all testify to the purity of character, brilliancy of intellect, suavity of manner, tenderness of feeling and patience of practice which characterized Dr. Lightfoot. Every one who saw him *knew* him. Every one who knew him loved him.

With christian fortitude, he bore his sufferings, and passed away in the avowed hope of peace and rest hereafter. His trust in God shone brightly

forth, and he died with faith in a happy and bright immortality. His father and brothers were present at his beside during his last hours.

Dr. Lightfoot was a member of Southside Council, Royal Arcanum, of this city.

A largely attended meeting of the medical faculty of the city was held last evening at the office of Dr. Budd, at which appropriate resolutions of respect, prepared by a committee appointed for the purpose, were adopted, and the faculty determined to attend the funeral in a body, and wear the usual badge of mourning for thirty days."

During the short professional life he enjoyed, he won for himself a reputation as a worthy and able practitioner wherever he was known—a reputation that had extended throughout a large section of the State, and one which any might envy. He was smitten by the hand of death just when a bright prospect for professional pre-eminence was opening before him. The large circle of friends he had won in the Society, as well as in the laity, will ever remember him as the generous-hearted, true and brave gentleman and physician whose place, in their esteem, can be filled but by few. He was an active member of the Medical Society of Virginia and of the Petersburg Medical Society. Although he had contributed but one or two short articles to medical literature, his reticence in this particular was due more to an innate modesty which is sometimes due to young men who have every mark of true greatness, and whose established experience would make any record of his observations of value. Only a few of his worth in the Virginia profession are left to build it up to the high standard it has heretofore attained.

The Committee greatly regrets that it has not been able, as yet, to obtain suitable notices of the lives and characters of the other Fellows whose deaths are mentioned by the Recording Secretary. It is, however, the hope of the Committee to secure appropriate memoirs of the deceased Fellows during the year in time for report at the next annual session.

Respectfully submitted.

PROCEEDINGS.

FIRST DAY—NIGHT.

OLD POINT COMFORT, VA., *October 10th*, 1781.

The Twelfth Annual Session of the Medical Society of Virginia convened in the ball-room of the Hygeia Hotel, Old Point Comfort, Va. (Monday), October 10th, 1881, at 8:30 P. M.

The meeting was called to order by the President, Dr. Hunter McGuire, of Richmond, and opened with prayer by the Rev. Dr. O. F. Herrick, Chaplain U. S. A., at Fortress Monroe. Dr. Landon B. Edwards, Richmond, Recording Secretary, and Dr. Charles S. Brittan, Assistant Recording Secretary, were also in place.

Col. S. S. Elder, U. S. A., now stationed at Hampton, was introduced by Dr G. Wm. Semple, Chairman of the Local Committee of Arrangements, who, at the request of Col. Livingston, U. S. A., commanding the post, delivered an *Address of Welcome*, wishing the Fellows of the Society much profit from their deliberations, and tendering the hospitalities of the officers of the post.*

Dr. Semple offered the following, which, on motion, was adopted:

Resolved, That the commanding officer of the post, his family, and the officers of the post and their families be invited to attend the meetings of the Society; also, that the medical officers of the post, Dr. Charles Page, Surgeon U. S. A.; Dr. Jno. V. Hoff. Assistant Surgeon U. S. A., and Dr. George H. Marmion, Surgeon Soldier's Home (near Hampton), be invited to seats on the floor and to participate in the deliberations of the Society.

Dr. Semple presented invitations from Governor Woofin, Superintendent

* The Recording Secretary regrets that he was unable to secure a copy of Col. Elder's excellent address, replete as it was with happy, playful hits at the profession, contrasting the life and mission of the soldier and that of the physician, and full of generous welcome. Col. Elder, though earnestly solicited, says as his address was not premeditated, and as it was delivered *ex tempore*, it is impossible for him to reproduce a copy.

of the Soldier's Home near Hampton, and Mr. J. F. B. Marshall, Treasurer and Acting Principal of the Hampton Normal and Agricultural Institute, for the Society to visit these respective institutions at such times as may best suit its convenience.

On motion, the invitations were received and the thanks of the Society returned.

Dr. Semple also presented an invitation from the Old Dominion Steamship Company, tendering to the Society an excursion to Cherrystone or Yorktown on one of their steamers.

The invitation, on motion, was accepted, and a vote of thanks returned, and the time set was Wednesday, at 9 A. M.

It having been ascertained that none of the Committee on Nominations was present, on motion of Dr. Edwards the following Committee *pro tem* was appointed: Hon. Fellow Dr. Henry Latham, Lynchburg; Drs. W. L. Robinson, Danville; J. E. Chancellor, Charlottesville; M. L. James, Richmond; E. A. Drewry, Southampton.

The Committee, after consultation, nominated the following named gentlemen for fellowship, and their nominations were duly confirmed.*

Names.	Post Offices.	By whom Recommended.
Dr. Meade Bolton,		Dr. Meade C. Kemper.
" B. R. Bryant,	Branchville,	" W. B. Barham.
" George Calloway,	Norwood,	" Meade C. Kemper.
" Vernon Y. Culpepper,	Portsmouth,	" R. H. Parker.
" Walter A. Crow,	Glade Spring,	" Geo. Ben. Johnston.
" C. C. Duffy,	Norfolk,	" T. J. Riddell.
" J. D. Eggleston,	Worsham,	" Landon B. Edwards,
" J. W. Ford,	Richland Mills,	" P. B. Bowen.
" C. L. Garnett,	Newports News,	" Meade C. Kemper.
" Robert Glasgow,	Buffalo Forge,	" Meade C. Kemper,
" E. H. Grigg,	Pamplins,	" James L. White.
" —— Jennings,	Peaksville,	" Oscar Wiley.
" R. D. Leith,	Aldie,	" Jesse Ewell, Jr.
" George B. McCorkle,	Covington,	" Landon B. Edwards.
" John H. Moore,	Loudoun county,	" A. R. Mott.
" A. R. Mott, Jr.,	Leesburg,	" Landon B. Edwards.
" John E. Mount,	Mountsville,	" A. R. Mott.
" Grier M. Nickell,	Goshen,	" W. B. Gray.
" Charles C. Peyton,	Martin,	" James L. White.
" Orvil Rogers,	Lomore,	" Meade C. Kemper.
" W. D. Ronaldson,	Longdale,	" Meade C. Kemper.
" J. H. M. Sykes,	Richmond,	" Landon B. Edwards.
" J. W. Taylor,	Loudoun county,	" A. R. Mott.
" Phillip Taylor,	Richmond,	Hon. Fel. Dr. F. D. Cunningham.
" James E. Warner,	Loudoun county,	Dr. A. R. Mott.
" Nelson G. West,	Goresville,	" A. R. Mott.
" James Willard,	Loudoun county,	" A. R. Mott.
" W. R. Winchester,	Leesburg,	" A. R. Mott.

While the Committee on Nominations of Applicants for Fellowship was

* The above embraces all the nominations of applicants for Fellowship during the several days of the session.—[*Note by Recording Secretary.*]

in consultation, the Recording Secretary presented the following annual report:

The usual exchanges have been received and deposited.

A letter returned uncalled for, was addressed as follows: Dr. Randall Holden. City Point, Va.

A Certificate of Fellowship has been sent to Dr. E. A. Chancellor, St. Louis, Mo.

The following named Fellows of the Society have been reported to the Recording Secretary as having died: Drs. Levin S. Joynes, Richmond, Va.; Chas. Macgill, Richmond, Va.; P. H. Lightfoot, Petersburg, Va.; D. M. French, of Alexandria, and Wm. B. Klipstein, of Alexandria, of which necrological notices will be duly presented by the Committee on Necrology.

The following named gentlemen, having paid all dues to date, offer their resignations of Fellowship, which offers of resignation are respectfully recommended to be accepted: Drs. McDowell Massie, removed to Clarksville, Tenn.; J. B. Jordan, Newberne, Va.; Wm. Hamilton, Staunton, Va., and D. C. Dickenson, of Museville, Va.

Arrangements have been made, as far as practicable, with the several lines of travel for reduced rates for members and their families who may visit Old Point Comfort at this time.

Respectfully submitted,

LANDON B. EDWARDS, *Recording Secretary.*

In regard to the *Annual Address to the Public and Profession*, the Secretary read a letter dated June 22d, 1881, from Dr. M. M. Walker, of Richmond, the orator elected at the last session, stating that on account of ill-health it would be impossible for him to prepare an address, and requesting that the Executive Committee appoint some one in his place, suggesting Hon. Fel., John Herbert Claiborne. The recent affliction in Dr. Claiborne's family of course having prevented him from accepting, the Executive Committee, in the short time left, could not secure a substitute.

On motion, the Society adjourned to meet at 10 o'clock to-morrow morning.

SECOND DAY.—Morning.

Tuesday, *October 11th*, 1881.

The Society convened in the parlor of the Hygeia Hotel, and was called to order at 10 A. M. by the President.

The Assistant Secretary read the minutes of the meeting of last evening, which, on motion, were approved.

The register of Fellows present was then read, and all who had not registered were urged to do so at once. [The following is a list of all in attendance during the several days of the session, arranged alphabetically for convenience of reference.]

Names.	Post Offices.
Dr. J. A. Alexander,	Broadway.
" L. Ashton,	Falmouth.
Hon. Fellow, Dr. Harvey Black,	Williamsburg.
Dr. Kent Black,	Blacksburg.
" J. T. Boutelle,	Hampton.

Names.	Post Offices.
" Charles S. Brittan,	Richmond.
" Bedford Brown,	Alexandria.
" C. A. Bryce,	Richmond.
" J. E. Chancellor,	University of Virginia.
" C. C. Conway,	Rapidan.
Hon. Fellow, Dr. F. D. Cunningham,	Richmond.
Dr. E. A. Drewry,	Drewrysville,
" Landon B. Edwards,	Richmond.
" J. M. Estill,	Tazewell C. H.
" W. B. Gray,	Richmond.
" S. K. Jackson,	Norfolk.
" M. L. James,	Richmond.
" Meade C. Kemper,	Goshen.
Hon. Fellow, Dr. Henry Latham,	Lynchburg.
Dr. O. F. Manson,	Richmond.
" G. W. O. Maupin, Jr.,	Portsmouth.
Hon. Fellow, Dr. Hunter McGuire,	Richmond.
Dr. S. B. Morrison,	Natural Bridge.
" H. M. Nash,	Norfolk.
" R. H. Parker,	Portsmouth.
" D. C. Pharr,	McDonalds.
" W. L. Robinson,	Danville.
" G. Wm. Semple,	Hampton.
" W. T. Sutton,	Norfolk.
" T. James Taylor,	Walton.
" Z. G. Walker,	Brownsburg.
" W. R. Winchester,	Leesburg.
" Isaac White,	Shawsville.
" Joseph A. White,	Richmond.

Dr. G. Wm. Semple presented the following report as delegate to the Medical Association of Alabama, and also a copy of the last *Transactions* of that Association, which, on motion of Dr. J. E. Chancellor, was received, and the thanks of the Society returned to Dr. Semple:

Hampton, Va., *October* 10, 1881.

Mr. President,—I have to report that I attended the meeting of the Medical Association of the State of Alabama, held at Montgomery in April last, as the delegate from this Society. I was received with cordial courtesy and hospitality, and invited to a seat in the Association and to participate in its interesting debates. I now deliver to you a copy of the transactions sent to me for this Society. A study of the organization and conduct of the Association would suggest many improvements that might well be accepted by this Society. The Association has acquired an influence in the health legislation of that State, most useful to publish and honorable to the Association and to the wisdom of the Legislature. It appoints all city, county and State boards of health; admits or rejects candidates for medical practice; encourgaes and controls the formation of country, town and city Medical Societies, through which its examinations of candidates for medical practice are conducted, and has thus greatly elevated the character, standing and influence of the medical profession in the State. Of this latter, the character of the papers read before the Association and published in the transactions will fully attest.

G. Wm. Semple, M. D.

After the reading of the report, Dr. M. L. James moved that it be spread upon the minutes. Carried.

The Recording Secretary read the following report of the Corresponding Secretary, which, on motion, was received and ordered to be incorporated in the minutes:

RICHMOND, VA., *October* 5, 1881.

Dr. Hunter McGuire, President Medical Society of Virginia:

Dear Sir,—As I cannot attend the Twelfth Annual Session of the Medical Society, which convenes at Old Point on the tenth of the month, I beg leave to submit my report through the Recording Secretary.

My duties during the year have been light, and the report will therefore be brief.

A few days after the adjournment of the Danville meeting, the books and papers of the office were turned over to me by my predecessor, Dr. Christopher Tompkins. From that time until early in January, 1881, there was nothing that claimed my attention. The appointments for reports in the different departments of the profession, and the list of delegates to the various Medical Societies of the country then being handed to me, occupied me several days in preparing and sending out, besides the necessary notices and credentials. Letters of acceptance and inquiry were received and answered. It became necessary to duplicate the credentials of many of the delegates from the Society to the American Medical Association, the original papers having been misplaced. Within the last few days, letters of inquiry as to the time and place of the meeting of the Society have been received and the information given in reply.

This, I believe, is an epitome of everything that has required my attention during the year. Regretting the necessity for my absence, and wishing you all a pleasant and profitable reunion, I am,

Very respectfully,

M. M. WALKER, M. D., *Corresponding Secretary.*

The Secretary read the report of the Committee on the Organization of a Medical Aid Society, which, after recommending for adoption a Constitution and By-Laws, concluded as follows:

Mr. President,—Your Committee on the "Organization of a Medical Aid Association" has the honor to report for your adoption the following *Constitution of the Virginia Physicians' Mutual Aid Association:*

ARTICLE I. The title of this Association shall be, the "Virginia Physicians' Mutual Aid Association."

ART. II. *Object.*—The object of this Association shall be to afford pecuniary aid to the widows and children of its deceased members by such assessments as shall be required by the charter and by-laws.

ART. III. *Officers.*—The officers of the Association shall be a President, Vice-President, a Recording and Corresponding Secretary, and a Treasurer, all of whom and seven Directors shall constitute a Board of Trustees. The officers shall be elected annually at the meeting each year of the Medical Society of Virginia, and shall hold office until their successors are duly elected and qualified.

ART. IV. *Membership.*—Any member of the regular medical profession, in good standing in the counties of Virginia, in good health, under sixty years of age, may be admitted as a member of this Association by a two-thirds vote of the Trustees, by ball ballot, on paying an initiation fee of two dollars and a first assessment, as provided by Art. V, Sec. 1; and after signing the charter and by-laws, or a voucher to that effect, within thirty days after he shall have been notified of his election, said voucher to be put on file by the Treasurer, and his name duly recorded.

ART. V. *Assessments.*—(1) The Treasurer, upon being informed of the death of any member of the Virginia Physicians Mutual Aid Association, shall immediately notify all the other members, and require of each the following payments, viz: one dollar from those admitted under fifty years of age, and two dollars from those admitted over fifty years of age.

(2) Any omission on the part of any member, without reasonable excuse, to pay an assessment within thirty days after the notification of the death of the last deceased member, will be under the liability of forfeiture of membership—the validity of said excuse to be decided by a majority of the Trustees. All assessments collected according to Art. V, Sec. 1, shall be paid to the legal representatives of the deceased member, less five per cent., for the Contingent Fund; and if not applied for by them, shall be placed to the credit of the permanent fund of the Association.

ART. VI. *Board of Trustees.*—(1) The Trustees shall transact the ordinary business, and take a general supervision of the Association, admit to membership and accept resignations after all dues have been paid.

(2) They shall invest the Permanent Fund as soon as it shall reach one thousand dollars, as follows: 1st, Bonds and mortgages on real estate, not to exceed half its estimated value; 2nd, In bonds of the State of Virginia and of the United States.

(3) Pecuniary aid may be furnished to sick members, in cases of special need, out of the interest of the permanent fund, according to a majority vote of the Board of Trustees.

(4) As soon as the permanent fund shall amount to the sum of ten thousand dollars, aid may also be rendered to the widow of a deceased member, and his children under fourteen years of age, out of the proceeds of said fund, provided a majority of the Board of Trustees approve of such a suggestion.

ART. VII. *Standing Committees.*—(1) Committee on Admissions.

(2) Committee on Applications of the Representatives of Deceased Members.

(3) Committee on Benevolence.

Any member being informed of a sick and destitute member, shall report his case to the Committee on Benevolence, and after due examination, if it is one entitled to the benefactions of the Association, the Trustees are authorized to make appropriations in his behalf, and, in case of his death, contribute to pay for his funeral expenses.

ART. VIII. *President.*—The President shall preside at the meetings of the Association. He shall be the chairman of the Board of Trustees.

ART. IX. *Treasurer.*—The Treasurer shall receive and have the custody of all moneys of the Association. He shall not pay any bills or appropriations unless previously ordered by a majority of the Trustees and signed by the Chairman; nor any dues to widows, children or their legal representatives, until duly authorized by the Chairman and Trustees. He shall deposit all moneys received from assessments in a trust company or bank approved by the Trustees. All checks shall be drawn to the order of, and endorsed by the President.

ART. X. *Reserved Fund.*—A reserved fund shall be created by contributions, donations, unclaimed assessments, interests, etc., not appropriated or required for the necessary expenses of the Association.

ART. XI. *Meetings.*—The Association shall hold its annual meetings on the first or second day of each year, when the Medical Society of Virginia shall convene and when an annual report of the affairs of the Association shall be made by the several officers elected.

In conclusion, in accordance with the instructions made by resolution of the Society at its session in Alexandria, 1879, the Chairman of your Committee will state that he attended the late meeting of the American Medical Association in Richmond with the purpose of inviting its moral support and co-operation.

The President of the Association (Dr. Hodgen) gave his assurance "at all times and on all occasions to do anything in his power to carry out such a plan."

Professor Lewis A. Sayre considers "the subject one deserving the favorable consideration of every man in the profession."

Professor N. S. Davis said "the object in view is a good one, and that many years since he had advocated such an organization and bestowed upon the matter some thought."

Dr. James Anderson, of the city of New York, Secretary of the New York Physicians' Mutual Aid Association, to whom the Committee is indebted for many valuable practical suggestions, says: "Our Association has been of great comfort to many a widow; yea, and four of its members—one a Professor, and who drove two horses. This Association excites sympathy and affection."

The Committee would respectfully and earnestly invite the Medical Society of Virginia to adopt a plan for the widows and orphans of the physicians of the State.

Respectfully submitted, FREDERICK HORNER, M. D., *Chairman.*

Hon. Fellow, Dr. Henry Latham, said that he felt great interest in this matter and heartily endorsed the report, but thought the matter should not

be acted upon too hastily, and favored the reference of the report to a committee for consideration.

Dr. Manson agreed with Dr. Latham.

After some further discussion, the report, on motion of Dr. Edwards, was referred to a committee of three, to report upon it as early as possible.

The President appointed the following committee: Drs. J. M. Estill, chairman, S. K. Jackson and Hon. Fellow, F. D. Cunningham.

Dr. O. F. Manson offered the following resolution, which, after some discussion, participated in by Drs. Manson, Semple, Cunningham and Latham, was adopted.

Resolved, That a Committee of five Fellows be appointed by the President to petition the Legislature for the establishment of a Board of Medical Examiners for the State of Virginia, the said Board to be elected by the Medical Society of Virginia.

Dr. Semple then offered the following:

Resolved, That the Corresponding Secretary address a circular to every Fellow of this Society, and ask a written *pledge* of each that he will use his utmost influence with the Delegate and Senator from his district in behalf of the resolution just passed.

Dr. James thought this a good resolution, and heartily seconded it.

Dr. Latham expressed himself in favor of the resolution, and thought this a matter of such grave importance that it should be brought prominently before every medical man in the Society and his earnest co-operation solicited, and his pledge required to use every effort to secure the end desired.

Dr. J. E. Chancellor did not like the word pledge used in Dr. Semple's resolution.

Dr. Semple then offered as a substitute the following:

Resolved, That the Corresponding Secretary address a circular letter to each member of this Society, asking his concurrence in the foregoing resolution, and request a reply to the letter, and report the replies received to the Society.

The vote being taken, Dr. Semple's substitute resolution was carried.

[The President-elect, at the request of Dr. Manson not to be appointed on the Committee, as he thought the Committee should be composed of non-residents of Richmond, has appointed Drs. Wm. C. Dabney, of Charlottesville, chairman; Hon. Fellows, Drs. Harvey Black, of Williamsburg, and J. Herbert Claiborne, of Petersburg; Dr. John S. Apperson, of Town House, and Dr. Robert J. Preston, of Abingdon.]

Dr. Manson submitted a paper on the "*Physiological Action and Therapeutic Uses of Quinia and its Salts*," without reading, which, on motion of Dr. Edwards, was referred to the Committee on Publication. [See page 344.]

The hour of eleven having arrived, Dr. Hunter McGuire proceeded to deliver the address of the President. [See page 265.]

On motion of Dr. Edwards, the address was ordered to be printed, and the thanks of the Society returned to Dr. Hunter McGuire.

The subject for general discussion, "*Summer Complaint of Children*," was then taken up, and after some unimportant remarks, on motion of Hon. Fellow, Dr. Henry Latham, was laid upon the table for the present, in order to receive the reports of the various Sections in Advances in Medicine, Surgery, etc.

The Secretary not having Dr. Christopher Tompkins' *Report on Advances in Anatomy and Physiology* on hand, on motion it was ordered to be read at the evening session.

The Secretary stated that he had received a note from Dr. Charles R. Cullen, of Hanover county, Chairman of the Committee on *Advances in Chemistry, Pharmacy, Materia Medica and Therapeutics*, stating that on account of bad health and other causes, he had been unable to prepare a report.

The Secretary further announced that no report on *Advances in Obstetrics and Diseases of Women and Children* had been received. This failure was, no doubt, due to recent afflictions occurring in the family of the Chairman of this Committee, Hon. Fellow, Dr. John Herbert Claiborne, of Petersburg.

Dr. Meade C. Kemper, of Goshen, Va., Chairman of the Committee on *Advances in Surgery*, next read his report.

After the reading of the report, Dr. W. L. Robinson, of Danville, said he thought that Dr. Kemper had most faithfully performed the duty assigned him, and moved that his report be ordered to be published in the forthcoming volume of Transactions. Carried. [See page 294.]

After a number of motions to adjourn and to visit the several places of interest to which the Society had been invited, at one or another time, none of which were carried, the following offered by Dr. Semple was adopted:

Resolved, That the Society now adjourn to meet at 3 P. M., continue in session until 4 P. M., then adjourn to visit the Soldiers' Home and Normal Institute, and re-assemble at 7 P. M.

[During the afternoon, the members of the Society and the lady visitors at the Hygeia Hotel, under the charge of Dr. Semple and other members of the Local Committee of Arrangements, visited the "Soldier's Home" and the "Normal Institute"—both located in Hampton, about two miles distant from Hygeia Hotel. The officers and attendants of both institutions were kindly attentive to every courtesy that could have been expected; and the Local Committee of Arrangements will ever have the heartfelt thanks of the many visitors who availed themselves of the generous invitation and hospitality.]

SECOND DAY—Afternoon.

At 3 P. M. the Society was called to order by the President.

Dr. Bedford Brown, of Alexandria, Va., Chairman of the Committee on *Advances in Practice of Medicine*, read his report, which, on motion, was referred to the Committee on Publications. [See page 315.]

Dr. L. Ashton, of Falmouth, thought that as Dr. Brown had spent much labor and research in compiling this report, and had made it one of value, moved that a vote of thanks be extended to Dr. Brown. Carried.

Dr. Brown, expressed his appreciation for the kindness of the Society, and said it was entirely unexpected, as he had only endeavored to do his duty.

Dr. W. L. Robinson, of Danville, asked Dr. Brown, might not large doses of quinine paralyze the nerve centres?

Dr. Brown said he thought it probably would.

Hon. Fellow, Dr. F. D. Cunningham, offered the following:

Resolved,—That a committee of thirteen Fellows, representing different sections of the State, be appointed to nominate officers other than the President for the ensuing session.

Carried.

The President appointed the following committee: Drs. M. L. James, Richmond; L. Ashton, Falmouth; C. C. Conway, Rapidan; D. C. Pharr, McDonald's; Meade C. Kemper, Goshen; W. L. Robinson, Danville; S. K. Jackson, Norfolk; E. A. Drewry, Drewrysville; Kent Black, Blacksburg; W. B. Gray, Richmond; J. M. Estill, Tazewell C. H.; J. E. Chancellor, University of Va.; Hon. Fellow, Henry Latham, Lynchburg.

Mr. Harrison Phoebus, the Proprietor of the Hygeia Hotel, at Old Point Comfort, at this moment appeared and stated that he was authorized by the Old Dominion Steamship Company, to invite the Society to take an excursion to-morrow morning on their steamers to Cherrystone or Yorktown, as the Society might determine.

Dr. Edwards moved that a vote of thanks be returned to the Company, and also to Mr. Phoebus for his untiring zeal in providing for the wants and pleasures of the Society. Carried.

After many calls on Mr. Phoebus for a speech, the gentleman very gracefully bowed his acknowledgements for the compliments, and himself out.

The Society then proceeded to the regular order of business.

The Secretary stated that the next order of business was the report on *Advances in Hygiene and Public Health*, but that Dr. J. Grattan Cabell, of

Richmond, Chairman of this Committee, had informed him that, for good reasons, he had been unable to prepare a report.

The Secretary also stated that the report of the *Necrological Committee*, Dr. John S. Apperson, Town House, Chairman, had not yet been handed in, but that Dr. Apperson had tried to get up the proper memoirs, and he would have them in time for publication, if practicable. [See page 411.]

The Committee to whom was referred the report of the Committee on the Organization of a Mutual Medical Aid Society for consideration and report, submitted the following, which was adopted:

The Committee appointed this morning to consider and report on plans of organization of a Mutual Medical Aid Association, as reported by the Committee continued over from the last annual meeting, beg leave to report as follows:

Whilst the objects of the Association commend themselves most highly to the profession, and the plan proposed seems as good as could be devised for their successful attainment, your Committee cannot recommend any action on the part of the Medical Society of Virginia other than a general endorsement of these objects and of the proposed plan, leaving their future adoption or application to the choice or desire of the individual members.

Respectfully submitted,

J. M. ESTILL, *Chairman*, S. K. JACKSON, F. D. CUNNINGHAM.

SECOND DAY—NIGHT.

The Society was called to order at 7 P. M. by the President.

The election of President being in order, Dr. G. Wm. Semple, of Hampton, Va., was elected by ballot. [See statement of officers elected below.]

The Committee on Nomination of Officers for the ensuing year, other than the President, (Dr. M. L. James, Chairman of the Committee), presented their report through their Secretary, Dr. Meade C. Kemper, as follows:

Dr. G. WM. SEMPLE, Hampton..... *President.*
" W. L. ROBINSON, Danville..... *1st Vice-President.*
" W. D. COOPER, Morrisville, Fauquier Co..... *2d* " "
" JOHN S. APPERSON, Town House, Smythe Co..... *3d* " "
" WM. B. GRAY, Richmond..... *4th* " "
" T. JAMES TAYLOR, Walton, Brunswick Co..... *5th* " "
" S. B. MORRISON, Rockbridge Co..... *6th* " "
" LANDON B. EDWARDS, Richmond..... *Recording Secretary.*
" M. M. WALKER, Richmond*..... *Corresponding Secretary*
Dr. CHAS. S. BRITTAN, Richmond..... *Asst. Record. Secretary.*
" LANDON B. EDWARDS, Richmond..... *Treasurer.*

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*Dr. Walker having resigned the office of Corresponding Secretary, the Executive Committee has elected Dr. Meade C. Kemper, of Goshen, Rockbridge Co., Va., as his successor.

Dr. Meade C. Kemper, Goshen, Rockbridge Co.	*Committee on Nominations.*
" Isaac White, Alleghany, Montgomery Co	
" G. McDonald, Union, Monroe Co., W. Va	
" H. M. Nash, Norfolk	
" Cyrus McCormick, Berryville, Clarke Co	
" W. W. Parker, Richmond	*Executive Committee.*
Hon. Fel., Dr. Harvey Black, Williamsburg	
" " " F. D. Cunningham, Richmond	
" " " J. H. Claiborne, Petersburg	
Dr. L. Ashton, Falmouth	
Recording Secretary and Treasurer, *ex officio*	
Dr. E. T. Robinson, Richmond	*Committee on Publications.*
" C. W. P. Brock, Richmond	
" George Ross, Richmond	
Recording Secretary and Treasurer, *ex officio*	

On motion of Dr. G. Wm. Semple, the report of the Committee, as to the nomination of the Vice-Presidents and other officers afterwards named, was unanimously adopted, and the favorable ballot of the Society cast for the election of the officers named in the report.

The several gentlemen named in the report of the Committee were then declared duly elected to the offices opposite their names, to be installed to-morrow morning.

Dr. James L. White moved that a committee be appointed to wait on Dr. Semple and inform him of his election as President of the Society.

The President (Dr. McGuire) appointed Drs. James L. White and W. L. Robinson.

After a short absence the committee returned, accompanied by Dr. G. Wm. Semple, President-elect, who, after being congratulated on his ascendency to the honorable position of President of the Medical Society of Virginia and escorted to the chair by the retiring President (Dr. Hunter McGuire), returned thanks, and expressed a high appreciation of the honor conferred upon him, pledging himself to a faithful and proper discharge of the duties imposed.

On motion of Dr. Edwards, Dr. Hunter McGuire was unanimously made an Honorary Fellow of the Society.

Dr. McGuire returned thanks to the Society in a few appropriate remarks.

The Recording Secretary then partially read the paper by Dr. Christopher Tompkins, of Richmond, Va., on *Advances in Anatomy*, which was further explained by Honorary Fellow, Dr. F. D. Cunningham. Accompanying the paper was the skull of a negro of unusual dimensions, the points of interest of which were fully explained by Dr. Cunningham.

On motion, this paper was referred to the Committee on publications.* [See page 281.]

* This paper was offered by Dr. Tompkins in place of his regular report on Advances in Anatomy and Physiology.

Dr. Joseph A. White of Richmond, next read a volunteer paper, entitled *Catarrhal Deafness.* [See page 326.]

On motion of Dr. Brittan, this paper was referred to the Committee on Publications with instructions to publish.

Dr. J. E. Chancellor, of Charlottesville, called for a report from the Committee on the *Therapeutic Value of the Mineral Waters of Virginia*, but was informed that, at the request of the chairman, this Committee had been discharged at the last session, he having been unable, after untiring efforts, to secure any data from which to compile a report.

Dr. J. A. Alexander, of Broadway, read a report of a *Case of Aspiration of Abscess of the Liver with Cerebral Symptoms*, which, on motion of Dr. Edwards, was referred to the Committee on Publications. [See page 333.]

Dr. L. Ashton, of Falmouth, also reported a case of *Hepatic Abscess*, and, on motion of Dr. Edwards, Dr. Ashton was requested to make a report of his case in writing. [The Recording Secretary regrets that he cannot furnish this report for want of manuscript from Dr. Ashton].

Dr. Semple stated that he had operated for hepatic abscess with the aspirator twice, unsuccessfully, though little pain was created and no harm done.

On motion, the Society went into the election of a place at which to hold the next Annual Session of the Society.

Dr. Edwards nominated the Fauquier White Sulphur Springs, and, on motion, this place was unanimously selected.

Dr. G. Wm. Semple, the President, vacated the chair and read a volunteer paper entitled, "*On Some Unnoticed Effects of Chloroform on Deglutition, and Observations on the Advantages of a Solution of Hydro-Bromate of Quinine for Hypodermic Injection.*

On motion of Dr. Charles S. Brittan, this paper was referred to the Committee on Publications with instructions to publish. [See page 330.]

On motion, the Society adjourned until 3 P. M. to-morrow.

THIRD DAY—Morning.

Wednesday, *October* 12th, 1881.

[Some misunderstanding having arisen regarding the time of the excursion, as proffered through Mr. Phoebus, in the name of the "Old Dominion Steamship Company," by request of the President (Dr. G. Wm. Semple), in accordance with the wish of the Fellows generally, the Society was called to order about eleven-and-a-half o'clock in the forenoon.]

The subject for general discussion, "*The Summer Complaint of Children*," was first called up, but after some few desultory remarks by several Fellows, it was, by mutual consent, set aside.

On motion, the Society went into the election of a subject for general discussion at the next Annual Session.

Dr. J. E. Chancellor moved that the "*Therapeutic Value of the Mineral Waters of Virginia*" be selected.

Honorary Fellow Dr. Henry Latham suggested "*Antiseptics.*"

Dr. Charles S. Brittan suggested "*Abnormal Menstruation.*"

At this moment, Dr. O. F. Manson appeared, and moved that the present order of business be suspended, in order that he might present the report of the Committee on Publication.

Carried.

He then read the following report:

OLD POINT COMFORT, VA., October 12th, 1881.

The Committee on Publication beg leave to report that, immediately on reception of their credentials, they entered upon the discharge of their duties.

At the commencement, the Committee was much embarrassed by the fact that the Treasurer reported that the funds of the Society were exhausted; but, nevertheless, the members of the Committee resolved to execute their mission in the best and speediest manner possible. The Committee therefore waited upon some of the leading publishers of the city of Richmond, and inquired of them upon what terms they would publish the *Transactions*, relying for payment upon the collection of the annual dues of the members by the Treasurer. As would naturally be expected, the publishers the chairman called, were unwilling to perform the work without a specific and positive guarantee of reward; nor were they willing to make any proposal based upon a mode of payment as that of material delay. In this dilemma, the Committee resolved to adopt the precedent established for the past seven years previous, and to receive proposals from Dr. Landon B. Edwards, the Editor of the *Virginia Medical Monthly*, who agreed to publish the *Transactions* at prime cost, and to await payment until the dues of the Fellows could be collected.

At the conclusion of the contract and after the *Transactions* had been distributed among all the members of the Society and its exchanges, the publishers submitted the account, amounting to $194. This the Committee declare to be a reasonable and just price, and recommend its prompt payment.

Yours respectfully,
O. F. MANSON, *Chairman*; WILLIAM B. GRAY, E. T. ROBINSON.

On motion, the report was adopted.

The subject selected for general discussion—*Summer Complaint of Children*—was again called.

Honorary Fellow, Dr. Henry Latham, of Lynchburg, in response to a call on him to open the discussion, excused himself.

Dr. J. Edgar Chancellor, of Charlottesville, thought the subject one of great importance; but as he had expressed his views last year at the Danville Session, he would call on some who did not then say anything on the subject. He was anxious to hear from Dr. Bedford Brown, of Alexandria, who, he knew, had had large experience in the treatment of this serious complaint.

Dr. Brown responded that, while he had some experience in the management of patients with "summer complaint of children," as of course every general practitioner has had who has been thirty years in practice, still he had nothing new to offer, and therefore did not think it worth while to detain the Society by any remarks on his part.

Dr. G. Wm. Semple, of Hampton, stated that he had made an observation or two regarding the use of pepsin and lactopeptine in the treatment of infantile diarrhœa that might be worth the mention. During the past summer, in four consecutive cases of summer complaint in children, after the administration of lactopeptine for two days, round worms were discharged by his patients, and the little sufferers improved very rapidly. Dr. Semple has found carbolic acid and glycerin, made up in the form of an emulsion with oxide of zinc, to act very nicely in the treatment of such diarrhœas. This mixture relieves the peculiar and excessive fœtor of the alvine discharges which is sometimes a prominent feature, and in addition cures the diarrhœa He uses an emulsion of a teaspoonful of oxide of zinc and carbolic acid to ten drops of glycerin.

There apparently being no other remarks to be made on the subject, on motion of Dr. Charles S. Brittan, of Richmond, the discussion was closed.

Dr. Joseph A. White, of Richmond, read a paper on a new method of performing optico-ciliary neurotomy, which operation, although long since suggested by Guthrie, had been done only once by him. Later, however, other surgeons of note had operated by the same method with good results. Dr. White has tried several of the proposed operations; but he finds the one now suggested to be the best, as it is also the simplest. Recoveries from the operation are much more rapid.

On motion, the paper was referred to the Committee on Publications. *

On motion by Dr. Pharr, the selection of a subject for general discussion at the next Annual Session was taken up.

Dr. J. Edgar Chancellor suggested the "*Therapeutic Applications of Mineral Waters.*"

Honorary Fellow, Dr. Henry Latham, did not like the subject.

Dr. Samuel B. Morrison, of Brownsburg, suggested "*Antiseptics.*"

Dr. ——— suggested "*Abnormal Menstruation.*"

Dr. O. F. Manson requested that the order of business be suspended so as to let him present the report of the Committee on Publications, of which he was chairman. Request granted.

Dr. Manson then reported that the cost of the *Transactions* of the last Annual Session was $194. The Committee awarded the contract for the

* The Recording Secretary regrets that Dr. White has not furnished his manuscript for publication.

publication to the *Virginia Medical Monthly*—following the usage established by the former Committees since 1874.

On motion, the report was received and adopted, and the thanks of the Society voted the Committee for the manner in which it has discharged its duty.

Dr. Hunter McGuire, after recounting certain statements published by Dr. C. A. Bryce against the Committee on Publications, accusing them of fraud in the manner of the publication of the *Transactions* of the Society, etc., moved his expulsion from Fellowship with the Society. He stated that Dr. Bryce had frequently repeated these accusations and had sought to bring the Society into disrepute with the profession at large. Some of the profession had indeed been prevented from joining the Society on account of these uncorrected statements.

Dr. Bryce asked that specific charges be preferred against him.

Dr. Henry Latham suggested that these proceedings are irregular in form, and moved that a committee be appointed to make an investigation into the charges and report at the next annual meeting.

Dr. Landon B. Edwards was anxious that a full investigation be made of all the facts connected with any connection of any member of the Committee with the matter. He therefore seconded Dr. Latham's motion, with the understanding that the committee report this afternoon.

Dr. McGuire then moved, as a substitute for his original motion, that a committee of five be appointed to report at this Session this afternoon.

Motion seconded and carried.

After some further discussion, the matter was amended to the effect, that the committee report at the earliest possible moment practicable before the close of this Session.

The President appointed the following committee: Drs. W. R. Winchester, of Leesburg; S. B. Morrison, of Brownsburg; D. C. Pharr, of Gap Mills, Monroe county, W. Va.; Meade C. Kemper, of Goshen, Va., and Bedford Brown, of Alexandria, Va.

On motion, the selection of a subject for general discussion at the next Session was again taken up.

After some suggestions as to the subjects already nominated, the vote being taken, the subject of *Antiseptics* was lost and *Abnormal Menstruation* selected.

On motion, by Dr. Charles S. Brittan, the Society adjourned until 4 P. M.

THIRD DAY—Afternoon.

Owing to unavoidable causes, the Society was not called to order until after 5 P. M. The President, Dr. G. Wm. Semple, in the chair.

The committee appointed this morning to investigate the actions of the Committee on Publications, according to the allegations by Dr. C. A. Bryce, submitted the following report through its Recorder, Dr. Kemper:

The undersigned members of your Committee, appointed to investigate the action of the Committee on Publications in relation to the allegations of Dr. Bryce, made recently through the *Southern Clinic*, do find that the conduct and course of the gentlemen composing the Committee on Publications, according to all the evidence which we have been able to collect, is unblemished and untarnished; that they have acquitted themselves honorably and correctly in all respects, and that the thanks of the Society are due them for their honorable and faithful labors.

We do furthermore find that, after a free and full conversation with Dr. Bryce, he expresses himself as having labored under false impressions in regard to the conduct of the Committee on Publications, and that he is willing to withdraw all allegations touching the honor and character of these gentlemen.

[Signed.] W. R. Winchester, Bedford Brown, Samuel B. Morrison, D. C. Pharr, Meade C. Kemper.

Old Point Comfort, October 12, 1881.

Dr. Henry Latham moved that the report be received and adopted.

After some discussion, Dr. Bryce stated that the report was acceptable, and that he would publish these proceedings.

Dr. McGuire then moved that the report be accepted. Seconded by Dr. Chancellor, and carried unanimously.

The Treasurer presented the following as his report:

Balance on hand after Treasurer's Report last Session	$ 14 46	
From Certificate of Fellowship	1 00	
From Initiation Fees and Annual Assessments	420 75	
Total receipts	$436 21	
Total expended as per vouchers in hand		$521 00
Total receipts		436 21
Balance due Treasurer		$84 79

The Treasurer respectfully relinquishes for this year all claims to the commissions due him by resolution adopted in 1872.

Respectfully submitted,
LANDON B. EDWARDS, Treasurer.

After reading the report, Dr. Edwards, moved that his books be referred to a committee of three to audit his accounts. Carried.

The President appointed Drs. J. M. Estill, W. L. Robinson and J. Edgar Chancellor.

On motion, the Society adjourned until 8:30 to-night.

THIRD DAY—NIGHT.

The Society was called to order at 8:30 P. M., by the President, Dr. G. Wm. Semple.

Dr. Landon B. Edwards moved that a section on Advances in Ophthalmology, Otology, etc., to be known as Section 7, be added to the regular Sections on Advances in the various departments of medicine. Carried.

The committee appointed to audit the Treasurer's books submitted the following report, which was adopted:

Mr. President,—We the undersigned, Auditing Committee, desire to report, after careful examination, that we have found the books kept right in their detail, except in adding the sum total of receipts on several pages. These were simply mistakes in addition, and in favor of the Treasurer. We find the receipts to amount for the year ending 1881 [to date], to be $436.21, and expenses, $521.00, leaving a deficit of $84.79.

Respectfully submitted,

[Signed.] J. M. ESTILL, *Chairman*; W. L. ROBINSON, J. EDGAR CHANCELLOR.

Old Point, Va., October 12, 1881.

The following resignation of Fellowship was then handed to the Recording Secretary for presentation to the Society by Dr. Bryce, which, on motion of Dr. Brittan, was received:

I hereby respectfully offer my resignation as a member of this Society.

C. A. BRYCE, M. D.

October 12th, 1881.

Dr. O. F. Manson stated that he wished to make some remarks on the subject for general discussion, *Cholera Infantum*, which subject he thought was too summarily disposed of when it was brought up. He would limit the character of his remarks chiefly to such statements of facts as might prove of value to young practitioners.

On motion, Dr. Manson was requested to write out his remarks for publication in the forthcoming *Transactions*. [See page 337.]

In response to a call upon Dr. Hunter McGuire, he reported a case of successful extraction from the bladder of a broken catheter; also a case of extraction of a catheter that had slipped entirely in the bladder.

On presentation by Dr. ———, it was

Resolved, That the thanks of the Society be voted to all the railroad and steamboat lines of travel who had granted reduced rates to Fellows attending this Session; also to Mr. Phoebus—the excellent and courteous proprietor of Hygeia hotel—for the many favors shown the Society; also to the United States Officers of Fortress Monroe for their kindness; also to the Officers of Soldiers' Home and of the Normal Institute at Hampton.

On motion, the Society adjourned to meet next Fall at Fauquier White Sulphur Springs.

APPOINTMENTS, Etc.

Officers for Term 1881–2: See page 428.

Place of Meeting, 1882: Fauquier White Sulphur Springs, Va.

Time of Meeting, 1882: To be announced hereafter by the Executive Committee.

Elected by Executive Committee to Deliver the Annual Address to the Public and Profession: Dr. S. B. Morrison, Brownsburg, Va.

Subject for General Discussion during Session 1882: Abnormal Menstruation.

Chairmen of Committees to report on:

(1) *Advances in Anatomy and Physiology:* Dr. William S. Love, Winchester, Va.

(2) *Advances in Chemistry, Pharmacy, Materia Medica and Therapeutics:* Dr. A. W. Fontaine, New Canton, Va.

(3) *Advances in Obstetrics and Diseases of Women and Children:* Dr. J. S. Wellford, Richmond, Va.

(4) *Advances in Surgery:* Dr. Hugh M. Taylor, Richmond, Va.

(5) *Advances in Practice of Medicine:* Honorary Fellow, Dr. John Herbert Claiborne, Petersburg.

(6) *Advances in Hygiene and Public Health:* Dr. John R. Page, University of Virginia.

(7) *Advances in Ophthalmology and Otology:* Dr. Joseph A. White, Richmond, Va.

Necrological Committee: Drs. John S. Apperson, Town House, Smythe Co., Va.; S. B. Morrison, Brownsburg, Rockbridge Co., Va., and William J. Moore, Norfolk, Va.

Delegates to the American Medical Association: Drs. R. S. Payne, A. M. Fauntleroy, Harvey Black, A. G. Tebault, S. G. Gleaves, F. D. Cunningham, James L. Cabell, J. H. Claiborne, Henry Latham, Hunter McGuire, William Selden, James Parrish, Jesse P. Hope, W. S. Stoakley, O. B. Finney, Bedford Brown, William P. McGuire, Caspar Henkel, L. Ashton, J. E. Chancellor, J. W. Mallet, J. S. Wellford, B. F. Dunn, J. D. Carnahan, William D. Cooper, A. R. Mott, W. Otho Hill, Meade C. Kemper, J. A. Waddell, George B. Jennings, Benjamin Blackford, William D. Hooper, Oscar Wiley, Kent Black, W. B. Bramblett, W. F. Barr, J. S. Apperson, R. W. Martin, Lewis E. Harvie, A. Trent Clark, James L. White, T. James Taylor, Hugh M. Taylor.

Delegates to the various State Medical Societies will be appointed by the President, Dr. G. William Semple, Hampton, Va. His object is to select those who promise to attend the respective bodies to which delegates may be appointed.

APPLICANTS FOR FELLOWSHIP.

NOTE BY RECORDING SECRETARY.

Those who design uniting themselves with the Medical Society of Virginia, should observe the following instructions in sending in their applications to the Recording Secretary. Write plainly—

Name in full.

Postoffice and County.

Date and College of Graduation.

Recommended by (some Fellow of the Society).

Each application for Fellowship must be accompanied by the Initiation fee (two dollars), which fee must be in hand before the application can be considered by the Committee on Nominations (see page 326, *Transactions* 1877). If the application is accepted by the Committee on Nominations, the fact is promptly announced to the Society, and the vote is immediately taken. If the party is elected, he at once shares all the privileges of Fellowship. Should he not be elected, the Initiation fee is returned.

Those who apply for Fellowship must be recognized as Regular Physicians, in good standing in the community in which they reside.

Ex-Presidents' Prize.

"To add to the interest of the meetings of the Medical Society of Virginia, and to the value of its *Transactions*, and to stimulate members to prepare and present important papers, the Ex-Presidents have decided to offer annually a prize for the best essay on some selected Medical Subject, and a prize for the best essay on some selected Surgical Subject. Each prize this year will be a gold medal, of $50 in value, or its equivalent in money. Prizes are open for competition to all members of the Society. The Subject for the *Medical Essay* this year will be: "*Alcohol, its use and effects as a beverage and medicine.*" The Subject for the *Surgical Essay* this year will be: "*Recent progress in abdominal surgery.*" Candidates for these prizes are required to notify the Recording Secretary at least two weeks before the meeting of the Society of their intention to present papers, and to inform him of the probable length of time required to read them.

"The Society will first determine, by ballot, whether any paper is worthy of a prize, and afterwards, by ballot, which one is entitled to it. The disposition of all papers presented for these prizes is to be determined by the Society."